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AIR CONDITIONING AND REFRIGERATION

News

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INSIDE DOPE

by GEORGE F. TAUBENECK

Story of the Week
The Carrot and The Stick'
Not What We Expected
We're Surprised
It's the Give In It
Salesmen: Please Note
Aesop Didn't Write This

Story of the Week

Two deaf mutes couldn't wait until they were married. They got along fine for awhile, even though they were obliged to communicate with each other by means of their standard sign language.

Sneaking into the house late one morning, after a session at poker with "the boys," the deaf-mute husband was confronted with an angry barrage of sign-language gestures from his wife.

Attempting to get the proverbial "word in edgewise," he raised his hands to answer her.

But, woman-fashion, she was going to have the last word or else. Just as he attempted to explain his alibi via thumbs and fingers she snapped off the light switch.

Moral: Never underestimate the Power of a Woman.

'The Carrot and The Stick'

The human animal is like a donkey—he requires either a carrot in front or a stick behind to goad him into activity.

It is fashionable at the moment to argue that the carrot is the more important. "Incentive" is the watchword. All classes argue that if only they are given a bit more incentive (at the expense of the rest of the community) they will respond with more activity.

From miners to company promoters, the basic argument is the same. And no doubt a bigger carrot would make the donkey move a bit faster. But it is probably more realistic to hold that the stick is likely to be more effective than the carrot.

It may be true that one reason people will not work hard is that they can buy so little with their wages. But it is much more true that they will not work because the fear of being fired from their jobs has vanished for the present.

It is the fashionable passion for equality—an excellent concept in itself—that has removed the carrot as an urge.

And the threat of punishment diminishes as social security is extended.

The more comprehensive the protection and the higher the benefits, the less is the urge to keep on working, or to seek employment when it is lost. . . .

Not What We Expected

The whole process of removing both the carrot and the stick from the calculations of mankind has culminated in the extraordinary circumstances which characterize this Era.

Shrunk as were the incentives and sanctions of pre-war days, they have now vanished completely. Nobody gains anything from activity, nor suffers anything from inactivity. There is hardly a flavor of carrot, or a shadow of the stick, to be found anywhere.

And yet we wonder why the donkey acts donkeyish!

When State Planners (the mild Socialists) remove Fear of Punishment and Hope of Reward from the Arena of Human Contests, they cut the heart out of all the incentives
(Concluded on Page 12, Column 3)

Excise Tax Doesn't Cover Room Cooler Replacement Units

WASHINGTON, D. C.—Sales of hermetically sealed replacement units for self-contained air conditioners are not subject to excise taxes under section 3405(c) of the Internal Revenue Code, according to a recent ruling made by the office of the Commissioner of Internal Revenue, it is reported.

In explaining the ruling, the office stated:

"The replacement unit must be handled on a special rack for shipment since there is no interconnecting support from one part to the next. The replacement is not a complete air conditioning unit and will not function properly until various other parts are provided. These parts customarily remain in the old air conditioner into which the replacement unit is placed."

Detroit Liberalizes Operating Ordinance

DETROIT—Two new city ordinances governing (1) operation of large refrigerating and air conditioning systems and (2) oil burner installations went into effect here last Thursday.

The new operating ordinance represents the first major revision in many years and provides a somewhat more liberal interpretation of requirements for licensing of systems and the need for operating engineers.

The oil burner ordinance, however, besides changing certain installation requirements, now calls for licensing of all contractors who install or service burners. Included in this is the reciprocal licensing feature which first appeared in the refrigeration code revised the preceding week.

Under the reciprocal licensing clause, installers and service firms licensed in other Michigan cities are permitted to operate in Detroit on payment of a nominal registration
(Concluded on Back Page, Column 1)

Carrier Sales, Profits Continue Gains In '48

SYRACUSE, N. Y.—Continued gains in sales, completed contracts, and net profit were chalked up by Carrier Corp. for the 12 months ending July 31, the company has announced.

Sales and completed contracts totaled \$55,734,519 for the 12-month period, a new high for the company, and represent a gain of roughly 20% over the \$46,120,771 for the corresponding period ending July 31, 1947.

Net profit for the 1948 period was \$2,531,456, equal to \$3.89 a share of common stock, compared with \$2,378,744 or \$3.62 a share for the previous
(Concluded on Page 33, Column 1)

Elpeco Refrigeration Div. To Go on Auction Block

PHILADELPHIA—Machinery and equipment of the Refrigeration Division of Electric Power Equipment Corp. here will go on the auction block Wednesday and Thursday, Sept. 8 and 9, at the premises, Shunk and Swanson Sts., the trustees announce.

The auction, which is subject to prior private sale, will be conducted by Samuel T. Freeman & Co., as allowed under bankruptcy proceedings in the U. S. District Court, according to Harold C. Stott and A. Robert Bast, trustees.

The sale will be subject to approval by the court.

Freezers Above 12 Ft. Exempt From Reg. W

WASHINGTON, D. C.—Home freezers 12 cu. ft. or more in rated capacity are not subject to the installment sales limitations of Regulation W, it is indicated by Federal Reserve Bank officials, who also announced that refrigerated vending machines for soft drinks are exempt regardless of size.

Home freezers are to be considered as mechanical refrigerators, it was stated to prevent any misunderstanding of the regulation, which includes in its list of items requiring minimum down payment of 20% the following description:

"Refrigerators, mechanical, of less than 12 cu. ft. rated storage capacity (including food freezers)."

With regard to refrigerated vendors selling soft drinks, the Federal Reserve Board declared that "such machines which are essentially vending units would not be considered refrigerators . . . and therefore would not be listed articles . . ." subject to the regulation.

Further interpretations of Regulation W will probably come from the Federal Reserve Board before Sept. 20, the date when the credit curbs become effective. There may also be changes or amendments.

To aid its members in interpreting the rules, the Electric Institute of Washington, D. C., has reminded dealers that trade-ins cannot be accepted as down payment on any appliance.

As stated in the text of the regulation, this does not prohibit trade-ins being accepted on listed appliances to be financed, but the 20% down payment must be figured on the price to the customer after the trade-in allowance has been subtracted from the selling price.

For example, a dealer may allow a consumer \$50 for a trade-in on a \$250 refrigerator. However, he and the consumer will not be permitted to write off this trade-in as the down payment, which would amount to \$50 (20% of \$250).

Instead, the down payment will be 20% of \$200 (\$250 less \$50 for the trade-in) or \$40.

Super-Cold Names Glazer Executive Vice President

LOS ANGELES—Board of directors of the Super-Cold Corp. has appointed Bernie R. Glazer, for over 14 years secretary and treasurer of the corporation, as executive vice president and general manager.

Glazer will be in full charge of all activities of the Super-Cold Corp.

N. A. Kessler, founder of Super-Cold, remains president and chairman of the board of directors.

NCRSA Plans Meeting In Philadelphia Oct. 7, 8

PHILADELPHIA—Second annual meeting of the National Commercial Refrigerator Sales Association will be held Thursday and Friday, Oct. 7 and 8, at the Penn Sheraton hotel here.

Officers and directors are scheduled to meet Thursday, beginning at 10 a.m., and the general meeting for members and others interested will start at 10 a.m. Friday, closing with a banquet at 7 p.m.

Distributors and dealers of commercial refrigerators, as well as representatives of manufacturers are invited. Reservations for non-members will be handled through NCRSA offices at 13 East Brady St., Tulsa 3, Okla.

'Delivered' Prices Established by Bush For Standard Items

HARTFORD, Conn.—Effective Sept. 1, all standard catalog items in the Bush Mfg. Co. heat transfer products line are being priced delivered to the nearest freight station anywhere in the United States or Canada, it was announced to the industry by James W. Hatch, president of Bush Mfg. Co. here.

From coast to coast and from Hudson Bay to the Mexican border prices on standard Bush heat transfer products will now be shown f.o.b. destination . . . making it no longer necessary for busy wholesalers to figure freight rates, differentials, etc. Hatch stated that the company reserves the right to select the route over which the shipment will be made.

Bush officials believe this is the first time that a manufacturer of refrigeration low sides has adopted a "delivered" price policy on a national basis.

"As shipping regulations and requirements have become increasingly complex it has been more and more apparent that the handling of these details by experts is desirable," declared company officials.

"Wholesalers seldom have either the time or the specialized facilities to give the necessary attention to these matters and it is obvious that this new policy can do much to simplify a hitherto cumbersome and time-consuming procedure."

Dail Heads Servel Electric Division

EVANSVILLE, Ind.—O. J. Dail, formerly assistant to the executive vice president of Servel, Inc., has been named general manager of the company's Electric Refrigeration Division.

Dail has been associated with Servel in various capacities since 1935, when he joined the factory organization as production superintendent of the commercial refrigeration division.

In his new position he will be in charge of sales, service, engineering, and production activities of this division of the firm.

F. J. Hood Is Elected New President of Ansul

MARINETTE, Wis.—F. J. "Jim" Hood has been elected president of Ansul Chemical Co. here, producer of refrigerants and other chemical products. He succeeds Harvey V. Higley, who has been named chairman of the board of directors.

Hood joined Ansul's California
(Concluded on Page 33, Column 1)

16-Day Strike Settled at International Harvester

CHICAGO—International Harvester Co.'s Refrigeration Division at Evansville, Ind., and five other I-H plants were reopened last Friday after a new contract agreement between UAW-CIO representatives and company officials ended a 16-day strike.

Under the agreement, reached Thursday during an all-night bargaining session, the former company-wide contract will be replaced by separate contracts at each plant. Grievance, apprenticeship, and arbitration procedures were other issues involved.

The agreement was said to cover about 21,000 workers.

Westinghouse to Offer Financing Plan with Bank

*Provides Floor Planning
for Dealers, Easing of
Repossession Risks*

NEW YORK CITY—An "Equity Plan" designed to encourage local bankers, particularly small bankers, to handle installment financing of Westinghouse appliances and radios at both the retail and wholesale levels was announced here last week by L. H. Lund, vice president and treasurer of the Westinghouse Electric Corp.

The plan is intended:

1. To establish agreements and insurances to relieve banks of some of the risks involved in appliance installment financing.

2. To assure dealers of adequate floor plan financing so that they will be able to stock a full line of appliances without having to deplete their working capital to pay for the merchandise in full at time of purchase.

3. To provide consumers with more equitable financing without the necessity of getting involved in a lot of red tape.

Lund claims that Westinghouse is the first manufacturer to offer such a plan on a national basis through the nation's banking system. Westinghouse, he added, is the only major appliance manufacturer without a finance company of its own.

The company, he added, believes that appliance dealers are best served by banks in their own communities "where local men understand local conditions and are the best judges of good credit risks."

He said that Westinghouse is now sending particulars of its plan to 15,000 local banks throughout the country and offering to sign an agreement with any bank wishing to
(Concluded on Page 4, Column 5)

Jacobs, Crosley May Make Automatic Washer Deal

DETROIT—Rex C. Jacobs, president of F. L. Jacobs Co., reported last week that the company is negotiating with the Crosley Division of Avco Mfg. Corp. for the manufacture by Jacobs of an automatic washing machine to be distributed by Crosley as an addition to its line of major appliances.

The negotiations have not been completed and at such time as they may be completed a full announcement will be made, Jacobs said.

Rowland J. Miller Takes Clayton & Lambert Post

LOUISVILLE, Ky.—Rowland J. Miller, formerly general sales manager for appliances of Ohio Fuel Gas Co., has become associated with Clayton & Lambert Mfg. Co. as special assistant to Charles F. Lambert, president.

Miller's duties at Clayton & Lambert will be confined initially to the development and coordination of merchandising and distribution plans for the firm's as yet unmarketed absorption-type household refrigerator.

Before assuming supervision of Ohio Fuel Gas Co. appliance sales in 1945, Miller was, over a 15-year period, sales manager in the Zanesville, Cambridge, and Toledo districts, respectively. On joining the gas utility in 1928, he participated in the development of the retail merchandising program for the then newly introduced Servel gas refrigerator.

Home Freezers Lead Sales Gain In Nashville, Tenn. Territory

NASHVILLE, Tenn.—Slight gains in sales of refrigerators, home freezers, and electric ranges during July were reported by local dealers, the Nashville Electric Service announced recently. Water heater sales, however, fell off.

As compared with June, home freezer sales were up 12% and refrigerator and range sales up 2% each. Water heater sales were down 17%, reports filed by 79 dealers indicated.

Fedders-Quigan Reports Net Profit of \$1,048,011

BUFFALO—Fedders-Quigan Corp. reports a net profit after taxes of \$1,048,011, or 87 cents a share, for the seven months ended July 31, compared with \$785,071, or 65 cents a share, in the like period of 1947.

Sales during the 1948 period were \$12,318,261, against \$10,420,590 for the first seven months of last year.

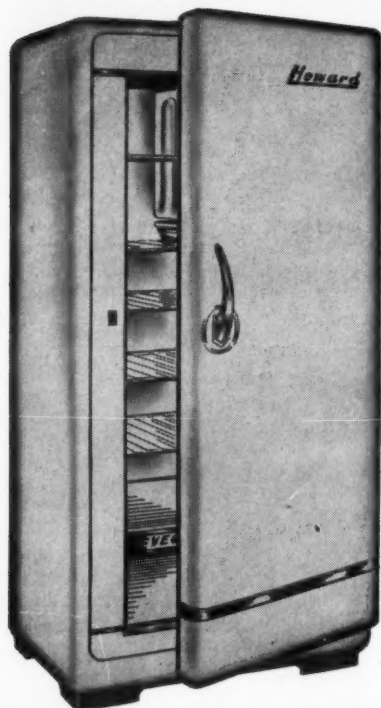
For the six months ended June 30, net profit was \$897,347, or 75 cents a share, compared with \$730,545, or 61 cents a share, during the corresponding 1947 period.

Sales amounted to \$10,490,027 in the first half of this year, while in the 1947 first half they were \$9,191,336.

Net profit for the quarter ended June 30 totaled \$433,892, or 36 cents a share, against \$402,581, or 34 cents a share, in the comparable period last year. Sales in the 1948 quarter were \$5,128,482.

St. Louis Outlet for Fedders

ST. LOUIS—Fedders-Quigan Corp. has appointed Recordit Distributing Co., 3028 Locust St., as distributor of its line of room air conditioners in the Greater St. Louis area.

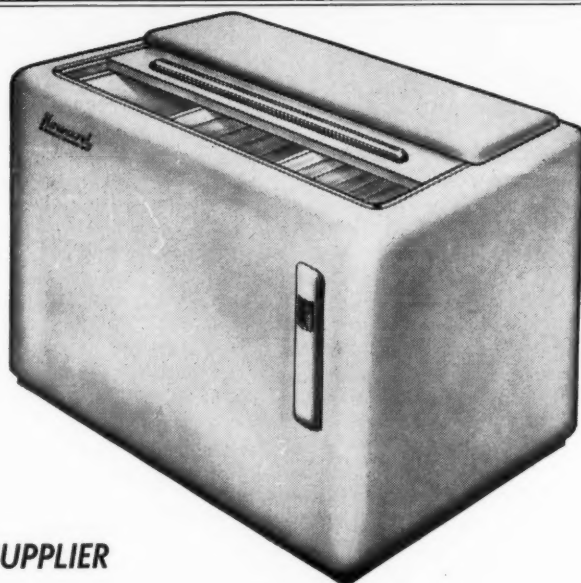


Howard

OFFERS A
COMPLETE LINE OF

- ★ REFRIGERATORS
- ★ BEVERAGE COOLERS
- ★ FREEZERS
- ★ DISPLAY CASES
- ★ WALK-IN COOLERS
- ★ WATER COOLERS
- ★ REACHINS

ALL FROM ONE SUPPLIER



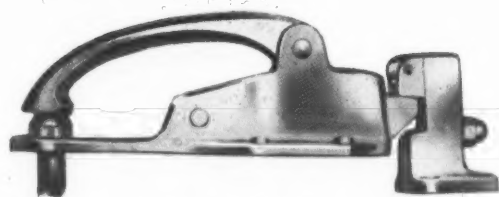
HOWARD REFRIGERATOR CO.

JACKSONVILLE RD., • HATBORO, PENNA.
Phone: HATBORO 1440 CABLE ADDRESS "HOWFRIG"

Open up!

...TO THOROUGH SATISFACTION

Two heavy duty veterans

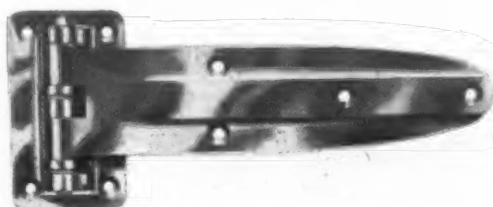


UNIVERSAL COOLER LOCK No. Z-325

CAST BRONZE

FINISH—NICKEL OR CHROME

WEIGHT—11 POUNDS



DOUBLE BALL BEARING HINGE No. 1012

CAST BRONZE

12 INCH BLADE

FINISH—NICKEL OR CHROME

WEIGHT—7 POUNDS PER PAIR

A full range of sizes for all needs.

These husky,

well balanced units

are the kind of

hardware you can

forget about—knowing

that they will do

their job quietly

and efficiently.

Write for catalog of the complete Arcade line

ARCADE

MANUFACTURING DIVISION
ROCKWELL MANUFACTURING COMPANY
FREEPORT, ILLINOIS



Schedule of Industry Meetings

Sept. 25-26—

Illinois Association of Refrigeration Service Engineers Society, annual convention, St. Nicholas hotel, Springfield, Ill.

Sept. 29-Oct. 2—

International Association of Electrical Leagues, annual convention, Mayflower hotel, Washington, D. C.

Oct. 7-8—

National Commercial Refrigeration Sales Association, annual meeting, Penn Sheraton hotel, Philadelphia.

Oct. 8-10—

Eastern Refrigeration and Air Conditioning Educational Exhibit and Conference, Hotel Bradford, Boston.

Oct. 20-23—

Refrigeration Equipment Manufacturers Association—Refrigeration Equipment Wholesalers Association, joint conference, French Lick Springs, Ind.

Oct. 25-30—

National Frozen Food Locker Association, annual convention and exposition, Hotel Sherman, Chicago.

Oct. 25-30—

Dairy Industries Exposition, Atlantic City, N. J.

Nov. 15-16—

Soda Fountain Manufacturers Association, annual meeting, Sheraton hotel, Chicago.

Nov. 18-19—

National Association of Refrigeration Contractors, annual convention, Hotel Sherman, Chicago.

Nov. 19-22—

Refrigeration Service Engineers Society, annual convention, and Midwest Refrigeration and Air Conditioning Educational Exhibit and Conference, Hotel Sherman, Chicago.

Dec. 5-8—

American Society of Refrigerating Engineers, annual convention, Hotel Statler, Washington, D. C.

Million Towels Will Promote Bendix Sales

SOUTH BEND, Ind.—The Bendix "Cannon Brigade," a store traffic building promotion during which more than 1,000,000 Cannon bath towels will be given away, opens Sept. 7, supported by national magazine advertising, spot radio announcements, newspaper space, and sales promotional aids.

Designed chiefly to assist Bendix washer dealers make sales, the premium promotion was described by Parker H. Ericksen, director of sales for Bendix Home Appliances, Inc., as "the most costly and extensive campaign ever attempted with a traffic premium as the spearhead."

He said expenditures would reach \$750,000. Costs will be shared by dealers, distributors, and the manufacturer.

Every woman who witnesses a demonstration of the new Bendix washer with automatic soap injector in a dealer's store will receive a free Cannon bath towel. On a registration card, she will give her name, address, and pertinent information about her laundry equipment.

Because tests of the "Cannon Brigade" proved so effective, Ericksen said, the promotion was being limited to the availability of towels, on a first come, first served basis.

In one test market, he reported, the dealer gave away 300 towels in three days, sold seven washers, two dryers, and one ironer, and hired two outside salesmen to follow up prospects. In another market, the dealer gave away 420 towels, sold seven units immediately, and anticipated 25 sales within 60 days.

In dealer cities, newspaper advertising will be used. Mats of 1,200 lines for joint signatures of participating dealers, and 40 and 20-in. mats for individual dealers are available. Spot radio announcements, handbills, truck banners, window streamers, direct-mail pieces, telephone canvass, and publicity will also be used.

Dough Retarder Fills Bill As Salad Refrigerator

MARSHALL, Mich.—Scherer-Gillett Co. here reports that its model 70-R reach-in refrigerator for retarding doughs, marketed under the trade name "Retardo," is also finding favor with hotels, restaurants, and institutions as a salad refrigerator. It has been found, say company officials, that the standard 18 x 26-in. bun pan makes a very convenient tray for salads. Since the Retardo is fitted in all three compartments with lag assemblies with the pan supports spaced on 2-in. centers, a large number of salads can be stored.

Jacksonville Gets Second Air Conditioned A & P

JACKSONVILLE, Fla.—Florida Weathermakers, Inc., Carrier air conditioning dealer, has just completed the installation of air conditioning in the A & P Supermarket at 4048 Herschel St. There are now two fully air conditioned A & P supermarkets in Jacksonville.

Heat Wave Melts Down Sales In New York Dept. Stores

NEW YORK CITY—A heat wave the last three days of the week ended Aug. 28 caused department store sales in the New York City area during that period to drop 16% below the dollar volume registered a year ago, according to the N. Y. Federal Reserve Bank.

New Sales Firm In San Diego

SAN DIEGO, Calif.—Ace Refrigeration Sales, Inc. has been formed in San Diego County, with a capital of \$100,000. Principals are: Maurice Carrigan, Willis J. Briggs, and L. W. Hoover, all of National City, Calif.

The Loudon Line for '49!

COMBINED REFRIGERATOR AND FREEZER

Two Temperature Combination

Self-Contained

Here's Loudon's brand new two-temperature combination! Nine cu. ft. low temperature storage, 11 cu. ft. normal temperature. Two separate units—separate controls. Dealers and distributors—write for details and price list.

Loudon Sales, Inc.

2524 27th Avenue South
MINNEAPOLIS, MINNESOTA





Symbol of Retail-mindedness

There's a sign on a street in your home town, that people confidently turn to in the knowledge that here is a trade mark of integrity and quality. It's the sign of their Kelvinator Dealer.

To the public, it symbolizes products that keep faith with the buyer... in uncompromising value and dependability. To the retailer that Kelvinator sign holds equal significance, for it means "selling room": an adequate market for every dealer... an *adequate* opportunity for growth and progress. And it represents products that can

be recommended with sincerity, sold with satisfaction.

Kelvinator Masterpiece Refrigerators with their exclusive "top-to-bottom" utility in food preservation, Kelvinator's new and advanced Electric Ranges and Home Freezers... are the manifestation of this retail-minded concern for the business interests of the dealer and the home interests of his customers.

And the unparalleled demand for these products is simply that policy of retail-mindedness... *in action*.

TUNE YOUR RADIO TO EDWIN C. HILL and "THE HUMAN SIDE OF THE NEWS" Monday through Friday... another retail-minded contribution to the progress of Kelvinator Dealers.

Kelvinator — of Course!

...THE MOST VALUABLE FRANCHISE IN THE APPLIANCE INDUSTRY

KELVINATOR, DIVISION OF NASH-KELVINATOR CORPORATION, DETROIT, MICHIGAN

New 3-way OASIS Compartment Cooler Sets Fast Profit Pace



- ★ Serves Properly Cooled Water
- ★ Makes 28 Full-sized Ice Cubes
- ★ Provides Big Refrigerated Space

● Here's the exciting new triple-value bottle-type cooler that has stirred up such a big demand among professional men, executives, smaller office groups, and dozens of other prospects. In addition to its ready supply of wonderfully cool drinking water, it provides 28 full-sized ice cubes in "Magic Touch" quick-release trays, plus a big refrigerated compartment for beverages, foods, pharmaceuticals, etc. (Holds 15 to 24 beverage bottles of average size.) Monel-metal lined compartment and door are fully-insulated; providing constant cold of 35-38° F inside. Door can be locked, for privacy. This sensational OASIS has many other leading features that give you a big edge on this profitable new business. Write for complete details today!



The EBCO Manufacturing Co.
401 W. Town St., Columbus 8, Ohio

Reina Tells Dealers Thinking on Plan of Price Stabilization

NEW YORK CITY—"There is nothing in the books that says we [dealers] must buy from selfish manufacturers and distributors who are only interested in making money for themselves, and who forsake the dealers and make it impossible for them to make any money."

"If we dealers do not get behind their products, they are out of business. Why don't we recognize this fact and act accordingly. Realizing that we are in the driver's seat, why don't we take advantage of it and operate our businesses the way we see fit."

So declared Theodore A. Reina, president of TRADA, Inc., an association of television, radio, and appliances dealers here, to the group's board of directors.

Price cutting and transshipping evils are the burden of distributors, not dealers, Reina asserted, speaking chiefly of television.

"We now have a price stabilization program that will go into effect on Sept. 15. We will definitely go through with this program, although we realize that by ourselves we are limited as to what we can accomplish. Nevertheless it is within the power of the manufacturers and distributors to straighten out the entire situation overnight if they so desire."

"We know all the evils in connection with the appliance business and there is no point in re-stating them."

New Crosley 7-Cu. Ft. Refrigerator



Measuring 55 in. high, 24 1/2 in. wide, and 24 3/4 in. deep, Crosley's new Model S-79 Shelvador refrigerator offers 7 cu. ft. of food storage space in a cabinet reportedly occupying less floor space than was required for 4-cu. ft. refrigerators in 1941. One of its principal features is a 25-pound frozen food storage compartment. Other features include a polystyrene chill tray for meats, a one-piece "breaker" strip of plastic, a newly-styled temperature control dial at eye level, and a new Crosley "Electrosaver" unit "requiring greatly reduced space." Suggested retail price is \$219.95.

Westinghouse Plan--

(Concluded from Page 1, Column 5)

cooperate. The plan itself is divided into two parts: a wholesale section and a retail section.

In the wholesale section, the bank is asked to "provide equitable financing for the distributor's retail dealers" in purchasing appliances from the distributor in return for which Westinghouse offers these assurances:

1. The bank is relieved of problems arising when merchandise must be resold.

2. Low-cost insurance protection against fraud hazards is made available to the bank at its option.

3. Physical damage insurance also has been provided along with the fraud bond by a group of leading underwriters who worked out the entire program at the invitation of Westinghouse.

This is accomplished by signing with the bank a "wholesale floor plan repurchase agreement" that provides that, in the event of repossession, the distributor who sold the dealer the merchandise will buy it back at the bank's request and according to the terms of the agreement. If the distributor is unable to do so, then Westinghouse itself will buy back the repossessed merchandise.

Floor plan financing by the bank would be the standard 10% down with 90 days to pay plus a 30-day extension privilege.

The insurance against fraud or damage from a long list of dangers including fire, theft, windstorm, flood, vandalism, and transportation applies to all products manufactured or distributed by Westinghouse and to other products approved by the underwriters. It becomes effective from the moment the bank assumes the risk for the merchandise.

Under the "dealer retail equity agreement," when the bank buys a consumer instalment contract from the dealer, the dealer agrees to repurchase any repossessed appliances. The dealer is obliged to pay up the entire balance due if the repossession takes place within the first three or four months of the contract.

If the contract has run longer than that, however, he pays only an established percentage of the balance due as outlined in a "retail repurchase schedule" supplied by Westinghouse. The dealer is thus provided with a small allowance to help offset reconditioning and reselling costs.

The bank, to cover the difference between this established percentage and the balance due, can charge a "credit insurance" fee on each instalment contract. In the repurchase schedule, this fee is figured at not less than 75 cents per \$100. However, there is no compulsion for the bank to use this rate.

This feature, according to Westinghouse officials, appeals to dealers and provides the bank with a salable retail finance plan.

In pointing out the need for the Westinghouse Equity Plan, Lund said, "Years of Westinghouse experience have shown that seven out of 10 buyers of new major appliances and radios want and are economically obliged to pay in instalments rather than in a lump sum. This is a business reality, particularly in an inflationary period."

This 70% of buyers was estimated to represent \$2,500,000,000 in sales.

The Equity Plan is similar to one Westinghouse has had in effect in 11 western states for the past two years.

We can, however, point out that Dumont, Magnavox, and now Gross Distributors, (distributor for Stromberg Carlson in this area) have come up with excellent plans that will protect the dealers' profits," Reina said.

"I feel that all other distributors are well aware of the industry's problem and it rests entirely with them as to whether or not they are sincere about maintaining a good strong dealer organization."

"What can we do to wake up the manufacturer and distributor? I'll tell you—do not adhere to their present method of distribution."

"Is there any reason why we should warehouse for them? None at all. That is their job."

"Is there any reason why we should buy in quantity? There is no price consideration today if we do."

SHOULD DEALERS ANTICIPATE?

"Is there any reason why we should anticipate our purchases three months in advance? No, of course not."

"Is there any reason why we should have our profits in inventory because of tie-in sales?"

"What have you lost if you lose a few of the television franchises that you now have? I mean, of course, the undesirable ones. I'll tell you—nothing. Why? Because you know as well as I do that this merchandise can be picked up anywhere."

"Since this is true, why carry an inventory of X number of dollars? What for? It is much cheaper for you to pick up a set even if you do have to pay a sub-distributor 5% more. (Incidentally a sub-distributor is something new that the distributors have created.)"

"Until such time that the distributors wake up and uphold the price of the fair-traded items by not selling to well-known established discount and premium houses, and stop the existing transshipping evil, your franchise and my franchise on these products are absolutely worthless, and don't let the distributors place the blame for transshipping on the dealers. They have the means of controlling this situation if they so desire."

"All manufacturers and distributors will openly admit that they must have the backing of their dealers in order to have a successful operation. They could never promote their merchandise through department and chain store outlets only."

"We dealers are in full control of that situation. It may be true that through advertising people will walk into our stores, and that's good for us, but once they are in, we are the masters and can switch them to the products we wish to sell."

CAN'T CUT 10% AND SHOW PROFIT

"At our last meeting we gave you figures of a survey that showed the approximate operating costs of an appliance dealer, which were 10% for overhead, 6% sales cost, 3% advertising, which comes to 19%."

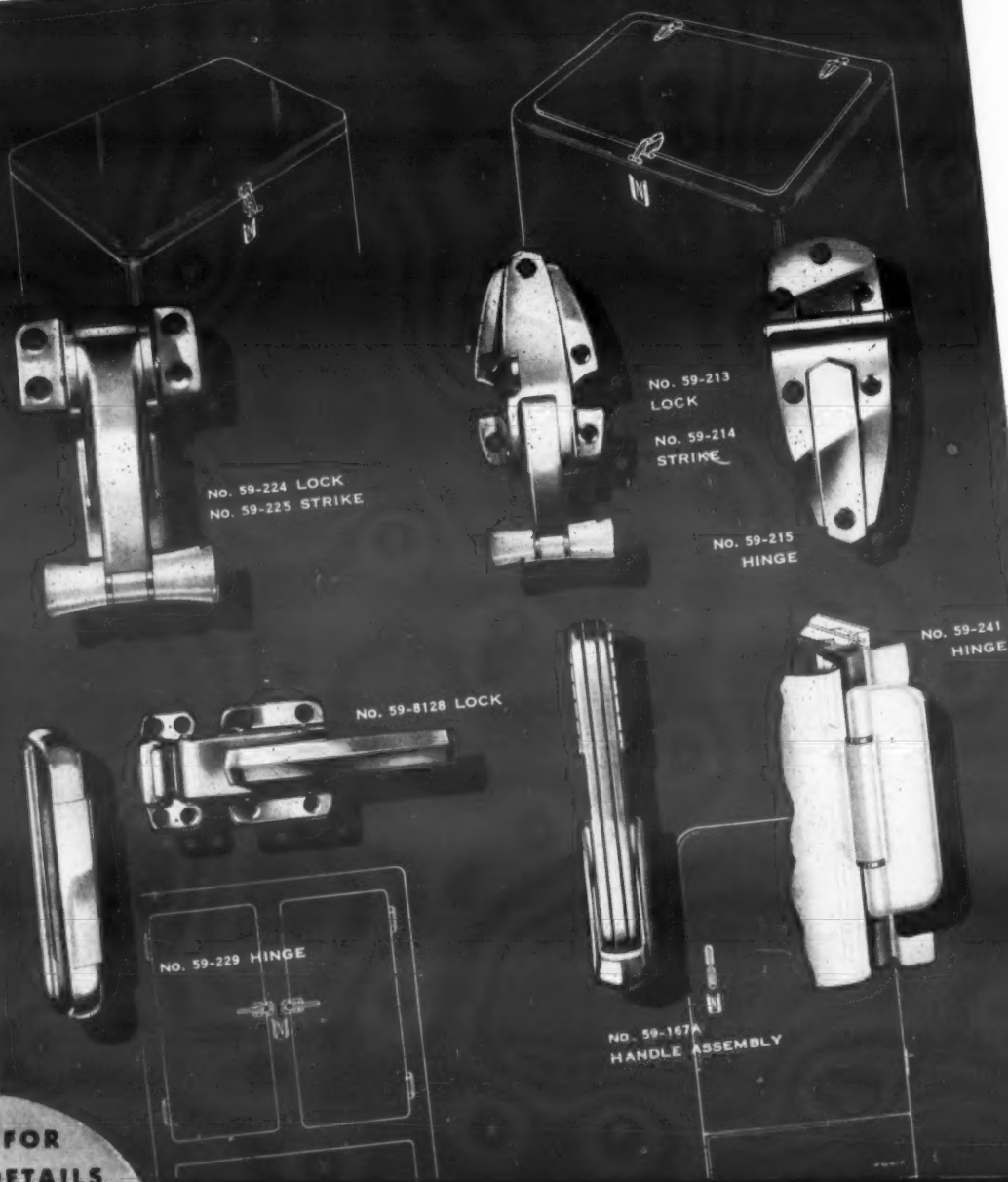
"When this survey was made, better appliance dealers with efficient operations were taken into consideration. I know, and you know, that the operating cost of the average appliance dealer runs higher."

"Under these circumstances how can a few large distributors suggest a 10% discount—oh! pardon me, 'trade-in allowance'—on television when our gross profit is no more than 28%? According to these figures you must lose at least 1% on every television set you sell."

"In other words, if the same distributors wanted to sell you television sets at a discount of 18%, would you buy them? I should say not."

see **NATIONAL LOCK** first

FOR LOW TEMPERATURE REFRIGERATOR HARDWARE



WRITE FOR
DESIGN DETAILS
ON
SURFACE,
"THRU-THE-DOOR"
AND
"EDGE-MOUNTED"
TYPES

NATIONAL LOCK COMPANY

ROCKFORD • ILLINOIS
REFRIGERATOR HARDWARE DIVISION

A Business In Itself

Minneapolis Firm Serves Home Freezer Field by Selling Supplies for Freezing

MINNEAPOLIS—What is probably the only service of its kind in the home freezer industry is offered by Cold-Art Corp., headed by A. T. Millott.

The firm specializes in selling wrappings, jars, plastic bags, and other supplies by direct mail to owners of freezers. In addition, it carries on a well-planned "educational" program in the form of a monthly bulletin sent to 6,000 home freezer users in the nation.

What started as a side-line "hobby" for Millott, who, together with E. C. "Bud" Graham, headed the Conditioned Air Equipment Co. & Freezers, Inc., during and immediately following the war, has mushroomed now into a full-time occupation. Reception of his service to the consumer, "a service overlooked by most manufacturers and dealers," has been so favorable that he plans to expand it during the coming months.

As did many merchants, Millott discovered that with the end of the war, the frozen food home freezer market had dried up and nearly blown away. Pondering the matter, he decided the freezer owner should know more about how to freeze and wrap food properly in order to get full satisfaction from his unit, perhaps bought on impulse.

Millott's bulletin discusses the latest methods of freezing and wrapping foods, how to get the most out of freezers, proper equipment and wrappings to use, and other information useful to the purchaser or dealer. Following closely the latest wrapping paper developments, freezing techniques, and research on home freezing at the University of Minnesota frozen food laboratories, Millott has been able to supply his large mailing list of customers with excellent educational material.

About 60% of the bulletins are mailed to freezer owners in the Twin Cities, 30% to those in neighboring states, and the balance to users elsewhere in the country. Many dealers and retail stores list him as the best source for freezer supplies.

He finds that aluminum and laminated aluminum foil rolls, plicofilm rolls and bags, and polyethylene plastic bags are the most popular and recommended items in freezing foods for home use. Samples of freezer materials are sent to prospective customers on request along with the bulletin.

Millott has been pushing a theme of food saving with the use and re-use of various wrappers and jars for left-over foods. He points out that the jars are perfect for left-over fruits, sausages, hamburgers, and butter. Also, they can be taken from a -30° compartment and placed under tap water to defrost in 30 seconds.

The polyethylene plastic bags are described as perfect vapor sealing materials which are odorless and unaffected by temperatures of -50° to 190°. He noted that they can be used again every day and can be washed and dried "like a dish."

Millott participated in the August

freezer promotion campaign conducted in the Twin Cities by appliance dealers in hopes of putting over some of his "educational" pointers to both dealers and consumers.

The firm, also a distributor for Whiting freezers in this area, was originally started in 1944 as a freezer of foods. Known then as Freezers, Inc., the company received nationwide attention for its wide selection of frozen specialties.

In October, 1946, the organization dropped the food freezing service to devote full time to sales of freezers and air conditioning installations and equipment. At present, Graham heads up Conditioned Air Equipment Co., which deals exclusively in air conditioning installations. A large sheet metal works plant is operated in connection with the business.

Thermometers Provide a Graphic Freezer Story

INDIANAPOLIS — Thermometers inside and outside his home freezer told a convincing story to visitors at Robert Webber's booth in the recent Marion County fair.

Webber, local manufacturer of freezers and heat pumps, took advantage of the scorching weather to show the public that even with the temperature hovering around the 100° mark, the interior of the freezer remained below zero.

During the entire week of the fair, the freezer exhibit attracted interested crowds and brought about several sales, according to Webber.

Burdine's Takes Cooler Line

MIAMI, Fla. — Russ & Dorothy Gray, who distribute room air conditioners made by Fedders-Quigan Corp., have named Burdine's Department Store here as an authorized dealer.

July Sales of Freezers, Washers, Beverage Coolers Moved to New Peaks in Chattanooga, Tenn. Area

CHATTANOOGA, Tenn. — Home freezers, water heaters, clothes washers, and beverage coolers all moved up to new unit sales peaks during July, a report compiled by the Electric Power Board of Chattanooga from local dealer records, showed recently.

The 74 freezers sold during the month by Chattanooga dealers stood 80% above sales of the previous month. Water heaters, with 442 sold, were up 58% over June. Clothes washer volume reached 619 units, 35% over June. Beverage coolers, 118 of them, moved at a clip 34% ahead of June.

Other commercial and domestic appliances presented a spotty picture. Clothes dryers were up 200%, though considerably behind sales a year ago. Ironers were up 8%. Vacuum cleaners were down 4%, refrigerators down 8%. Ranges held almost even.

On the commercial side, ice makers

and water coolers were up 133%, and freezing cabinets up 67%. But commercial refrigerators were down 25% and air conditioning units down 49%. Milk coolers held even—one unit sold.

In tabular form, the record for July was as follows:

Appliance	Units Sold	Average Unit Price	Total Sales Value
Refrigerators, domestic	724	\$ 277.26	\$200,735.15
Home Freezers	74	265.66	19,658.71
Ranges	599	242.69	145,370.05
Water Heaters	442	102.21	45,175.65
Ironers	39	152.78	5,958.47
Vacuum Cleaners	961	67.89	65,239.30
Clothes Washers	619	167.16	103,469.74
Clothes Driers	9	226.51	2,038.55
Air Conditioning Units	27	1,731.59	45,952.95
Refrigerators, commercial	6	911.95	5,471.67
Freezing Cabinets	5	300.25	1,575.00
Soda Fountains	1	2,300.00	2,300.00
Milk Coolers	1	250.00	250.00
Beverage Coolers	118	302.79	35,729.21
Ice Makers			
Water Coolers	7	196.07	1,372.48



Smooth Sailing in Rocky River for

Deepfreeze

TRADE-MARK REG. U. S. PAT. OFF.

HOME FREEZER Dealer

With 55 Deepfreeze home freezers already sold, and with a growing list of prospects to work on, G. E. Browne, Rocky River, Ohio, is enthusiastic about the present market and the outlook for the future. "Almost everyone is a prospect," he says, "and in the Deepfreeze product and in the Deepfreeze selling methods, we have what it takes to turn prospects into buyers."

Makes Good Use of Deepfreeze Advertising and Deepfreeze Sales Materials

Mr. Browne not only feels that he has a great product in the Deepfreeze home freezer, but gets that same feeling across to the people of his neighborhood, sees to it that they know who he is, where he is, and what he has to sell. On his building, there's a big Deepfreeze painted bulletin. Out front, there's a Deepfreeze neon sign. In his windows, there's always an attractive Deepfreeze display.

And with plenty of advertising at the point of sale, Mr. Browne also uses plenty of newspaper space, is consistently represented in his two home town papers.

10 Prospects a Day

Either by personal contact or by telephone, Mr. Browne talks to an average of ten prospects a day, makes every

effort to get them to his showroom, where he always is well prepared to receive them. Never are there less than four models on display. And two of these, at least, are kept filled with food — fruit salad, ice cream, soup, pies, cakes, cookies, doughnuts, meats.

"When they see these foods," says Mr. Browne, "prospects easily can picture the benefits of the Deepfreeze home freezer in their homes. And when they get that picture, they're in a mood to begin talking prices and terms."

You, too, can do what Mr. Browne is doing. And you, too, can expect similar results. The very same methods, the same selling helps, the same opportunities are available to every Deepfreeze home freezer dealer. Write or wire for our dealer proposition today.

DEEPFREEZE DIVISION, MOTOR PRODUCTS CORPORATION,
DEPT. AC-98, NORTH CHICAGO, ILLINOIS

There's only One!
Deepfreeze
TRADE-MARK REG. U. S. PAT. OFF.
HOME FREEZER

There are many makes of home freezers but only one can be called the Deepfreeze home freezer.

Deepfreeze — the fastest-selling home freezer line



De Luxe Model C-10
Holds more than 350 pounds of food. Price, delivered and installed—\$449.50



De Luxe Model C-5
Holds more than 168 pounds of food. Price, delivered and installed—\$269.95



Model B-10
Holds more than 350 pounds of food. Price, delivered and installed—\$389.50



Model B-5
Holds more than 168 pounds of food. Price, delivered and installed—\$239.95



Model B-16
Holds more than 560 pounds of food. Price, delivered and installed—\$599.50



Model A-4
Holds more than 125 pounds of food. Price, delivered and installed—\$199.95

SWIFT

Pulleys and Fan Blades
Industrial & Variable
Speed Pulleys

Standard equipment with most refrigeration unit manufacturers.
Sold By All Better Jobbers
Swift Manufacturing, Inc.
247 McDougall
Detroit 7, Michigan

insist on
genuine

Marlo

products

MARLO-HEAT TRANSFER
Since 1925

Self-Service Ice Cream Doubles Drugstore Volume

DENVER — Eliminating entirely the old practice of scooping ice cream and filling cartons behind the counter in favor of pre-packaged ice cream sold entirely on a self-service basis, has had the effect of doubling sales volume for Fillmore Drug Co. at Fillmore and Colfax Aves. here, according to Glen Miles, head of the store.

Instead of leaving it up to fountain-luncheonette personnel to take ice cream orders and fill them, the Fillmore store now is utilizing a two-compartment Weber display refrigerator immediately to the right of the main entrance.

One side of the glass topped box (which gives full visibility at all times due to a double pane arrangement) is kept filled with popular flavors of ice cream in pint and quart cartons, while the opposite side displays refrigerated popular specialties, such as ice cream bars, frozen sherbert bars, "cake a la mode," chocolate bars, and several other frozen candies.

Many candies which under normal circumstances could not be carried in the summer months are also displayed in quantities in the refrigerator.

A sign on the side of the reach-in box lists the popular flavors of ice cream found within, plus the specials mentioned above—and it is a simple matter for the customer to merely reach in, and pay at the tobacco department a few feet away.

"A lot of people who will not wait for fountain service on bulk ice cream when the fountain is obviously busy will cheerfully buy from the self-service unit," officials pointed out.

Former G-E Executive At Indian Motorcycle

SPRINGFIELD, Mass.—J. L. Ledeen has been named director of distribution for the Indian Motorcycle Co., it is announced by Ralph B. Rogers, president of the company.

Ledeen's appointment is a further step in the reorganization and expansion of the company's marketing organization, Rogers explained.

Formerly an assistant to the president of the Indian Motorcycle Co., directing the operations of one of the company's subsidiaries, Ledeen was at one time manager of sales for the Drierite Co. of Xenia, Ohio, and prior to that assistant to the sales manager of the General Electric Air Conditioning Department. With G-E he helped to develop an air conditioning distributing organization and had a major role in such projects as the air conditioning of the Walt Disney studio at Burbank, Calif.

E. W. Chapman Named To Tuthill Engineering Post

CHICAGO—Appointment of E. W. Chapman as vice president in charge of engineering, has been announced by G. B. Tuthill, president of the Tuthill Pump Co.

Chapman has wide experience in the rotary pump field. Before joining Tuthill, he served in a similar capacity for Bowser, Inc., industrial pump division. Prior to this, he was associated with the Blackmer Pump Co., first as development engineer and later as chief engineer.

G-E Distributor, Dealers Air 'Boston Tea Party'

BOSTON—Charles M. Wilson, general manager of General Electric Appliances, Inc., here has announced that the distributor in cooperation with local dealers are sponsoring a one-hour radio program daily, Monday through Friday, over station WCOP.

Known as the "G-E Boston Tea Party," the program is broadcast from 1:30 to 2:30 p.m.

The program is part of the audience participation type, and in addition to featuring studio contestants, presents recorded music with organ solos and background by Stan Cahoun. Two of the top WCOP announcers, Stan Shaw and Ken Meyer, are handling the "G-E Boston Tea Party."

Inland Empire Sales Up 5% In First Six Months

SPOKANE, Wash. — Total unit sales of electrical goods in the Inland Empire region of western Washington and Idaho for the first six months of 1948 were 5% higher than for the same period last year, according to a report by the Inland Empire Electrical Dealers Association.

"Better supplies of ranges, refrigerators, and washers this year have increased volume of sales of those appliances, but radios have had consistently lower sales," the report said.

"Water heater sales took a sharp nose dive in June after several good months earlier."

Commenting on future prospects in the light of reported critical steel shortages, the association said, "With refrigerators, some freezers, and scattered brands of other appliances already back on the scarce list with the table appliances that have never left it, many dealers are wondering if the fall will bring waiting lists."

Self-Service Scheme Spurs Stagnant Suckers

CLEVELAND—Most retailers are glad to keep their customers in their store as long as possible, but Consumers Cooperative market in Berea, Ohio, wanted a certain element of theirs out in a hurry and bought a low-temperature display case to do the trick.

Ervian J. Lowrie, vice president in charge of the Mandrake Refrigeration & Equipment Co., whose firm sold them the case, related that the store was plagued by small children who would dash in to purchase ice cream suckers. Once inside they would get caught in long lines at the check-out stand, and, with time on their hands, would sometimes get into mischief.

However, the firm solved this problem by purchasing a self-serve low-temperature case and installing it in a spot where the children could get their suckers, pay for them, and leave the store, in a few seconds.

Store Modernization Book Covers 1948 Clinic Topics

NEW YORK CITY—The five basic aspects of store modernization are included in an illustrated book of the 1948 Store Modernization Show's Clinics now available, states John W. H. Evans, managing director.

The informative clinic discussions by America's top experts on store modernization provide the material for the volume, *1948 Store Modernization Clinics*.

Including five chapters, "Store Layout and Traffic," "Store Lighting and Color," "Displays and Fixturing," "Store Fronts," and "Planning and Budgeting for Modernization," the book reveals complete details of the 1948 trends by the leading authorities in the field. Illustrations to accompany the text of the volume have been selected from the slides, diagrams, and photographs used by the speakers during the July panel discussions held in New York City.

In addition to the illustrated text

the volume contains the Question and Answer Forums where the panels of experts answered retailers' practical questions from the floor.

The book may be ordered for \$5 from Store Modernization Show, 40 East 49th St., New York City.

Seeger Co. 11 Months' Profit \$2.65 Per Share

ST. PAUL — Directors of Seeger Refrigerator Co. declared a dividend of 25 cents per share, payable Sept. 29 to stockholders of record Sept. 10. Net profit for the 11 months ending July 31 was equal to \$2.65 per share after taxes.

Another Hot N Kold

SACRAMENTO, Calif. — A new store has been opened at 1317 21st St. here by the Hot N Kold Shop, refrigeration equipment and service firm formerly located at 1701 J St.

Erected at a cost of \$60,000, the company's new building contains 2,550 sq. ft. of floor space. Robert Dotters is owner and manager.

"I'm delivering
three times as much
as ever before.."

A Leader in the Industry

Mountain Resort Areas Are Good Locations For Refrigeration Firms, Col. Dealer Finds

ESTES PARK, Colo.—An excellent field for the progressive refrigeration sales and service dealer are mountain resort areas, according to Jess Poling, authorized Frigidaire dealer who operates Poling Electric Co. in this mountain resort town of 6,000 population.

Actively engaged in major appliance merchandising since 1925, Poling has spent many years in the mountains during which he has developed a comprehensive refrigeration service covering commercial and domestic installations throughout the mountains, an excellent yearly sales volume on commercial and domestic boxes, plus such specialized services as heating installation and repairs.

Now completely electrified, the Estes Park area jumping to 40,000 population in the summer, has proven an excellent market for electric refrigerators, according to Poling.

Hundreds of cabin owners who formerly got along with the old-fashioned ice box are installing modern refrigerators, encouraged by the fact that Poling offers rapid, well-balanced refrigeration service to guarantee against breakdowns of any sort.

"Our sales and service are approximately 50-50," Poling said, "with the service end constantly growing."

In the rear of the Poling salesroom on Estes Park's main street is one of the West's most completely equipped refrigeration repair shops, large enough to handle anything from major air conditioning systems down to the smallest condensing unit.

The company maintains two rolling shops, inventorying around 1,100 parts, since there is little percentage in having mechanics toil up tortuous mountain roads, and then return to the shop for "something forgotten."

Philco Radio, Television Price Increase Planned

PHILADELPHIA—On or about Sept. 8, Philco Corp. will apply a general price increase of an unannounced amount to its radio and television receivers, the company has informed distributors.

Pointing out that it has held off advancing prices as long as possible, Philco said the move is "absolutely necessary" because of higher labor and material costs. The increases will be kept to a minimum, the company stated.

Wagener Sells Interest In Butler Service Company

BUTLER, Pa.—Nelson D. Wagener, a partner in Wagener Refrigeration Service here for 17 years, announced that he has sold his interest to S. Paul Riddle, who will continue to operate the firm at the same address. Wagener planned to move to Miami,

Frozen Food Industry Pushes Forward Again After Set Back In '47, Survey Indicates

NEW YORK CITY—The frozen food industry has recovered from the sock on the chin it took from an over-abundant food pack in 1946 and is now on its feet battling for a bigger share of the consumer's dollar.

The *Wall St. Journal*, surveying the industry in a recent article, finds several signs pointing to better days ahead.

It quotes George L. Mentley, general manager of sales and marketing for the Birds Eye-Snyder division of General Foods Corp. as saying: "Liquidation of the huge 1946 pack, which dragged through the first half of this year, is just about washed up. The industry is definitely on the upswing again."

It points out that more stores, possibly 100,000 this year, are handling frozen foods; more strong, established packers are getting into the industry; more effective efforts

are being made to interest consumers in frozen foods; and frozen foods delivery systems are being worked out by some department stores.

As for the 1946-47 pack, only some apricots and applesauce are still on hand. The paper said that, as of Aug. 1, stocks of frozen fruits and vegetables were about 110,000,000 lbs., or 15% less than last year. And this year, according to industry representatives, the price spread between frozen fruits and vegetables and the fresh product is narrower than ever before.

The number of stores carrying frozen foods rose from 12,000 to 60,000 last year and is expected to continue its rate of growth this year, according to the paper.

Safeway stores, it declared, will soon start market testing frozen foods in Los Angeles, New York City, San Francisco, and Washington, D. C. A southern California grocers co-operative, 1,300 strong, has recently taken on two lines of frozen foods.

New Packers Come In

On the packer level, Libby, McNeill & Libby is moving into full scale production on a line of frozen fruits and vegetables. Swift & Co. expects to be in national distribution on quick-frozen sandwich steaks and hamburgers by the end of this month with more items coming later.

To entice more consumers into using frozen foods, the Frozen Food Foundation has spent two years and nearly \$35,000 on the first Frozen Food Cook Book, a volume packing 400 recipes and 800 menus for daily meals and special occasions into 510 pages. It is currently being published by Simon & Schuster, according to the *Journal*.

Some 20 department stores around the country are now offering frozen food deliveries to their customers. How one, Ware's of New Rochelle, N. Y., operates the service was described by the *Wall Street Journal* as follows:

How Home Delivery Works

"It (Ware's) offers its 1,400 customers a selection of 250 items, ranging from fruits and vegetables to canapes, baked pies, frankfurters, oysters, shrimp, steaks, chops, and waffles.

"Customers taking Ware's Frostmaster Service can rent a home frozen food cabinet for a \$10 deposit and a monthly fee of \$3. At the end of six months, however, you have to buy the cabinet or relinquish it. Stores offering this service say the purchase rate averages between 80 and 85%.

"The average sales check for each delivery—they're made once a week—runs slightly more than \$7. To break even, officials estimate, they must get a \$2.50 to \$3 order, per customer, for each delivery.

"Orders are taken the day before delivery by a battery of telephone clerks at Frostmaster Service headquarters in Tuckahoe, N. Y. To get customers in the habit of making weekly purchases, calls are made at approximately the same time and day each week.

"Mrs. Jones, for instance, knows that at 10:28 a.m. on Friday her telephone bell will jingle and at the other end of the wire will be a Frostmaster Service clerk ready to take her order.

"With each delivery, customers also get a list of appetizing menus, along with instructions on how to prepare frozen meat, poultry, and other dishes."

Roden Covers Five States For La Crosse Cooler Co.

LA CROSSE, Wis.—Appointment of the R. H. Roden Co. of Fort Worth, Tex., as its sales representative in Texas, Oklahoma, Arkansas, Louisiana, and Mississippi, has been announced by the La Crosse Cooler Co. here.

The company also announced that Melvin Pine & Co. had been named export representative.

Hotel Plans Air Conditioning

PITTSBURGH—The cocktail lounge and dining room of the Sheraton hotel here, formerly known as the Keystone hotel, will be completely air conditioned as part of a remodeling program about to be launched.

"Never saw Ice Cream sell so fast"

Trust an ice cream man to spot a winner... like the FRIGID-FREEZE cabinets that are breaking ice cream sales records everywhere. Every cabinet in the line is field tested: the original open-top "Spot-Special", the extra-large capacity glass top cabinets to meet an evergrowing demand and a complete line of heavy duty standard ice cream cabinets. For profit-building "firsts" see FRIGID-FREEZE first.

Frigid-Freeze

REFRIGERATION CORPORATION OF AMERICA
NEWARK 5, NEW JERSEY • A DIVISION OF NOMA ELECTRIC CORPORATION

Central Air Conditioning Plant To Supply Shopping Area In \$Multi-Million Project

NEW YORK CITY—In the first such project of its kind, air conditioning from a central point is being furnished to the stores, professional offices, and a motion picture theater in the 16-acre shopping center of a multi-million dollar housing project here.

In providing this service, New York Life Insurance Co., the builder, has recognized air conditioning as a necessity for modern stores—just as fundamental to their operation as heat, light, and water service, Carrier Corp. officials stated.

Two 600-Ton Compressors Installed

The installation is being made at Fresh Meadows, Long Island, where, on a 170-acre tract, a half-hour from the heart of New York, a completely integrated community for 10,000 persons is being built. It includes 3,000 apartments, playgrounds, landscaped lawns, garages, model shopping district, and a new public school.

To furnish air conditioning for the shopping center, chilled water, piped through more than a mile of 12-inch pipe under a 100-pound head pressure, will be delivered to the individual stores. To provide this service, two 600-ton electric-driven Carrier centrifugal compressors have been installed in the central power station.

This centralized distribution of chilled water relieves the individual

stores of installing their own compressors, and provides them with complete air conditioning service on an extremely economical basis, Carrier said. It eliminates the need for large individual electric service, and the necessity of obtaining and disposing of the condenser water.

The Carrier compressors in the central plant will be supplied with condenser water from two specially bored wells. The used water from the condensers will be returned through two diffusion wells to the same underground strata from which it is pumped.

Further economy results from the fact that the central power station staff will maintain and service the compressors, relieving the store owners of individual machine maintenance.

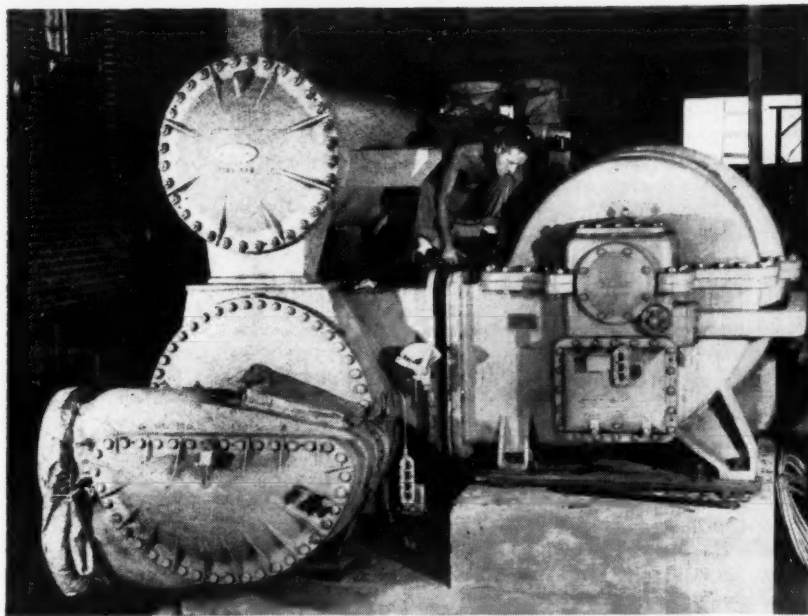
Buildings Will Include Ducts, Fans

Air ducts, fans, and all necessary adjuncts for an air conditioning system are being installed in the stores as they are built.

In emphasizing the importance of air conditioning in a multi-million dollar housing project of this type, Vice President Otto L. Nelson, Jr., of New York Life, told Cloud Wampler, president of Carrier Corp.:

"When completed, Fresh Meadows will be the home of some 10,000 people. In planning this large development, our objective has been much broader than merely to provide

One of Fresh Meadows' 600-Ton Compressors



Above is one of the two 600-ton Carrier centrifugal compressors, which will furnish air conditioning facilities to stores, offices, and a movie in the shopping center of the Fresh Meadows housing project. This project is said to be the first of its kind to recognize air conditioning as a basic necessity, and to provide it from a central point.

'housing'; rather it has been to plan an attractive, modern community for desirable 'living.' For this reason, we have given a great deal of thought to such things as air and light, landscaped areas, play space for children, availability of schools and recreational facilities, and many other items which are important in everyday family life.

"High on this list, of course, is shopping convenience and comfort.

The main shopping center will be one of Fresh Meadows' outstanding features, and in our plans we have naturally given careful consideration to the large scale use of air conditioning.

Theater Will Also Get Air Conditioning

In the shopping center will be a 2,100-seat motion picture theater and a branch of Bloomingdale's, large New York department store. The store will occupy 105,000 sq. ft. of floor space distributed over three selling floors.

All of the store occupants of the shopping center have been carefully selected to provide in one 16-acre area, practically every commercial service required by the ordinary family. There will be numerous professional offices for doctors, dentists, and lawyers, all provided with facilities for air conditioning. Nearby will be parking areas capable of accommodating 1,000 cars.

The two 600-ton Carrier compressors will operate automatically, varying their production of chilled water according to the "load" required by the prevailing temperature and humidity.

The outstanding features of this unusual central station air conditioning installation are described by H. E. Meeker, of the firm of Meyer, Strong & Jones, consulting engineers, New York, which designed the system, as follows:

Advantages Are Economy, Flexibility

"One of the principal advantages of the central refrigeration plant planned for this development, is the economy it will effect in initial cost and in annual maintenance and operating cost. The refrigeration machinery and chilled water pumping equipment will be installed in an extension of the central high pressure boiler plant.

"This arrangement will allow the refrigeration plant to be operated and maintained by the boiler plant operating force under the direct supervision of the chief engineer. As compared with individual plants for each air conditioned building or tenancy, the saving in operating and maintenance cost, as well as first cost, will be much greater.

"In addition to the considerable cost advantage of the central system, it is a much more flexible scheme than individual plants in that no provision need be made in the design of individual buildings for refrigeration equipment, cooling towers, or

other such items. Furthermore, subsequent changes in tenancy can be taken care of easily, with relatively slight structural changes to the building.

"Another important advantage of the central system is the greater flexibility provided for future extension of air conditioning facilities to future tenants.

Metering Equipment Is Unusual

"An unusual feature, applying to the larger air conditioning systems of the project, is the metering equipment provided for measuring the chilled water. These meters measure not only the volume of the chilled water used but also take into account the temperature rise of the chilled water through the air conditioning equipment.

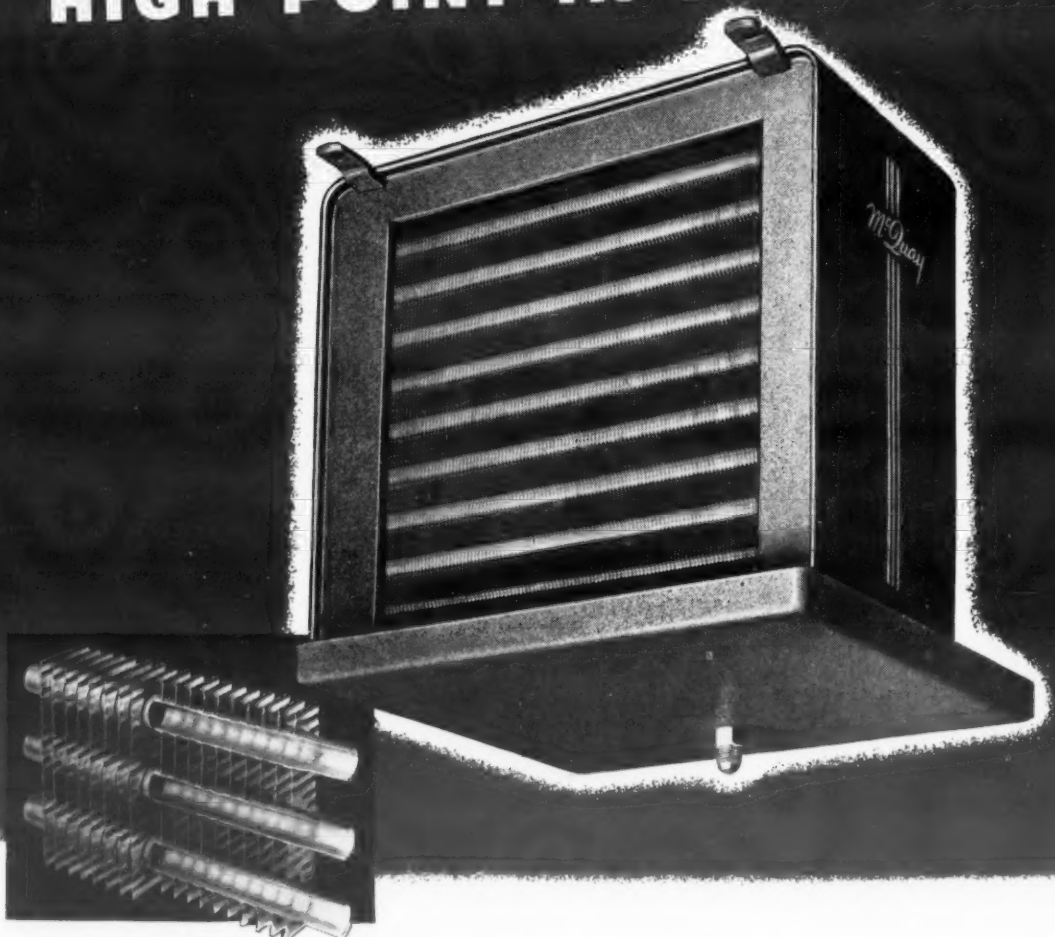
"These two factors are integrated and totaled in terms of million B.t.u. It is believed that the application of such meters in connection with the sale of refrigeration for air conditioning is unique with this development."

Architects for the project are Voorhees, Walker, Foley & Smith, of New York, with Meyer, Strong & Jones as consulting engineers. The general contractor is the George A. Fuller Co. J. L. Murphy, Inc., was awarded the heating and air conditioning contract.

Supervising the project for New York Life are G. Harmon Gurney, chief architect, and Richard T. Geoghegan, construction engineer, of the housing department.

New York Life hopes the entire project can be completed and entirely occupied before the summer of 1949.

HIGH POINT IN LOW SIDES



McQuay PACEMAKER Unit Coolers

Additional sizes and capacities in McQuay's Pacemaker unit coolers bring even greater range to this popular low side line. Now manufactured in twelve models with BTU capacities from 1,140 to 34,500, Pacemaker units provide effective cooling wherever average fixture temperatures above 35° F. are required.

Efficient heat transfer performance is assured by McQuay engineered Ripple-Fin coils with

copper tubes locked to plate-type aluminum fins by hydraulic expansion. Rippled inside tube surfaces provide proper refrigerant turbulence—highest refrigerating effect. Versatile Pacemaker coolers answer your refrigeration needs from back bars to walk-ins.

See your refrigeration wholesaler, today, or write McQuay, Inc., 1607 Broadway Street Northeast, Minneapolis 13, Minnesota.

McQuay INC.
HEATING • AIR CONDITIONING • REFRIGERATION

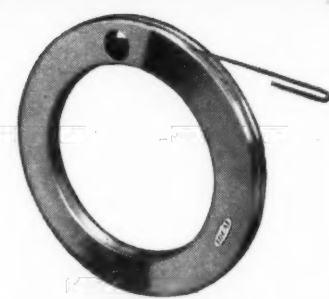


NIAGARA AEROPASS* CONDENSER

... increases refrigeration plant capacity; saves power and water. Patented features: "duo-pass" coil keeps condenser tubes free from scale; "oilout" constantly cleans oil and dirt from the refrigerant. "Balanced Wet Bulb Control" maintains minimum practical compressor head pressure.

NIAGARA BLOWER COMPANY
30 Years of Service in Air Engineering
405 Lexington Ave. New York 17, N. Y.
*Trade-mark registered

Speed Wiring—Save Tape with IDEAL FISH TAPE, REEL and PULLER



3 TOOLS IN ONE

This handy device belongs in every wireman's kit. Gives complete control of Fish Tape... keeps it reeled up... prevents springing and breaking... helps workman avoid "live" parts. Makes it easy to pull tape through conduit quickly without kinks or bends. No slipping. Gives a big grip. Tape is easy to reel in or pay out. 7 sizes. Ideal Fish Tapes are made of highest grade tempered spring steel wire—non-curling.

IDEAL VOLTAGE TESTER
Not an ordinary "glo" type—actually indicates nominal line voltage on easy-to-read scale, calibrated from 110 to 600 volts. **DOUBLE PROTECTION**—Combines solenoid indicator and neon test lamp. Tests AC or DC circuits. Complete with carrying case.

"E-Z" HAND TYPE STRIPPER AND CUTTER
For solid or stranded wire. Always ready—no cocking. Triple action... clamps wire, cuts insulation... strips—all in one operation. Eliminates wire waste. Made in two models. "Automatic" has lever to stop return of arms till stripped wire is removed.

"SAFE-T-GRIP" FUSE PULLER
No Slip! Formed to fit fingers; assures positive, full grip. Safe, handy, inexpensive. Eliminates danger, prevents bending of fuse clips. Three sizes. Many uses.—IDEAL INDUSTRIES, Inc., Sycamore, Ill.

IDEAL
Distributed Through
America's Leading Wholesalers

'I Gave My Nightmare a Whirl'**Freezer Dealer Tries Frozen Food Offer, Live Display, Advertising--and Sales Soar**

EAST LIBERTY, Pa.—The gift with every purchase of a 4 cu. ft. home freezer of a two months' supply of frozen foods "is selling a lot of home freezers!" declares R. E. Shaw, sales manager, Advanced Refrigeration & Appliances Corp. here.

Shaw tied in expertly with the new radio games "all America is playing from coast-to-coast." Alert to the appeal of prize offers, Shaw designed an odd promotion of his own.

"I gave my nightmare a whirl," he exclaims, "and we are very much pleased with results!"

"I am a home freezer fanatic," says Shaw. "My wife and I have a 16 cu. ft. freezer, and not a lady in the county knows as much about frozen foods as she does! We keep bread, pies, cakes, and all the extras. We've even frozen peppers, and the experts say it can't be done. But we've had excellent results!"

Given a fair chance, Shaw thinks, people will want to save the dollars home freezer advertising claims they can. But until recently people have been given a rough season. When freezers came out, many freezers were built, there were many freezers to buy, and production was so acute that prospects weren't told what the freezers were for nor what they could do with them.

PACKAGED KITS IN DISPLAY

So in a "live" display—in two sizes of freezers spaced apart in the showroom—Shaw exhibited the exact number of packages of frosted peas, orange juice concentrate (and other items) recommended by the manufacturer as two months' supply, plus his own odds-and-ends of cakes, pies, bread; and to that added packaged kits to show prospects how to prepare packages if they have a garden.

To push these displays, Shaw designed his newspaper promotion.

"After the front page and the sports or fashion sections," says Shaw, "probably 90% of the women and a huge percentage of the men shop the theater section."

"So we insisted that our advertisement run alongside the neighborhood theater section of the newspaper."

When Shaw finally secured that spot, quite by chance on the other side appeared the full-page advertisement of Pittsburgh's most advertised department store. Each department store patron who turned the page over, saw Shaw's advertisement. People cashed in the value immediately.

"The idea of saving a dollar by making one purchase," says Shaw, "appeals to people who can buy home freezers."

Another idea that is paying off in freezer sales is sending an original postcard inviting customers to send

back to him the names and addresses of at least five home freezer prospects, and offering the person contributing the names a worthwhile \$5 appliance on display in the store for "every sale of a freezer the store makes to a customer's lead."

"Several women," says Shaw, "have mailed in nine leads, and two leads in each case brought freezer sales. One lady mailed back five leads, and we sold to four of them! We offered that lady her selection, and she chose a \$20 electric roaster."

"In prizes we offer anything in the small appliance line: (1) complete line of clocks, (2) coffee makers, (3) waffle irons, (4) electric irons, (5) small radios; or to the value of the prize we let the customer pay the difference and purchase, say, a pressure cooker."

Formula Given for 'Best' Syrup In Fruit Freezing

CORVALLIS, Ore.—Most satisfactory syrup mixture for use when freezing fruits is a combination of sugar, corn syrup, and water of either medium or heavy consistency, experiments conducted at the Oregon Experiment Station have indicated.

Researchers tested 13 different fruits prepared in 22 different syrups for flavor, color, and texture.

Their recipe for a medium syrup is to mix five cups of cold water with two cups of sugar, stirring until sugar is dissolved. Then add two cups of corn syrup and mix well.

For heavy syrup, the ratio is four cups of water and three cups of sugar to two cups of corn syrup.

No matter which syrup is used, they stress that it must completely cover the fruit in the container before sealing for the freezer.

Giles Takes on Lenco Line

DENTON, Tex.—Red Giles Air Conditioning & Electric Co. here has taken on the Lenco room cooler line.

Frozen Food Classes Aid Freezer Sales In Denver

DENVER—Home freezer sales in the major appliance department of the May Co. here, have been considerably accelerated by a program of daily instructional "frozen food classes" developed by Orris Scott, major appliance buyer.

The first "cooking school" type of promotion entered into by the May Co. since before the war, the frozen foods classes are scheduled from 1 to 3 o'clock each afternoon, with enrollment limited to 25 persons. Under the operating plan developed, the May Co. has abandoned "over-generalized" sales promotion and concentrates instead on vegetables, meats, and fruits most prevalent in the Denver area.

The curriculum was worked out by the Wilson Co., local home freezer distributor, who provides a demonstrator, signs, etc., while the May Co. provides foods, utensils, and the "auditorium"—which is simply a space accommodating 25 chairs in

the firm's home freezer department.

Direct mail on the classes has gone out to home owners in one section after another in the city, plus a long list of locker renters. Women's associations, clubs, etc., will be invited in toto, from time to time. Classes are devoted to one subject for a week at a time, such as processing and packaging vegetables, fruits, meats, pastries, cooking of frozen foods, and refrigerator storage.

United Sets Record for Single Day's Shipment

HUDSON, Wis.—Shipment of 18 carloads of commercial refrigeration equipment from its Hudson, Wis. plant plus forwarding of an unusual number of LCL orders was achieved one day in August by the United Refrigerator Co.

It was the largest single day's shipment in the history of the company. Reorganized under new management about a year ago, United manufactures a complete line of beverage coolers, beer dispensers, ice cube makers, freezers, reach-ins, walk-ins.

New!

HEAVY DUTY 15.8 CUBIC FOOT FREEZER

INTERNATIONAL HARVESTER

BIG ENOUGH FOR ANY FAMILY!

CROWN REFRIGERATOR CORP.

- STAINLESS-STEEL REACH-INS
- FARM & HOME FREEZERS
- DRY BEVERAGE COOLERS
- FULL-VISION SHOW CASES
- DOUGH RETARDERS

FACTORY and SALES OFFICE METUCHEN, NEW JERSEY

BULK and CUBE ICE MAKERS

FOUR SIZES — PROMPT DELIVERY

- 250 • 1000
- 500 • 2000

LBS. DAILY CAPACITY

Self Contained and Remote Electric, Gasoline or Diesel Engine Driven Units. (Refrigeration Engineering Corp.)

RECO PRODUCTS DIVISION
2020 Naudain Street, Phila. 46, Pa.

Shown above are the five other units in the IH Refrigeration Line—three Household Refrigerators, and the 4.2 and 11.1 cubic-foot Freezers.

Here's a new sales opportunity for International Harvester Refrigeration dealers. It's the new International Harvester Home Freezer, Model 15 FC—a BIG freezer for families who freeze in quantity and store frozen foods in quantity.

The freezing unit is the famous, hermetically-sealed International Harvester "Tight-Wad." The motor develops 1/2 horsepower. Spring and rubber mountings absorb all vibration. Protection plan extends five years.

The "Freeze-Area"—an exclusive International Harvester feature—occupies more than 4 square feet at the bottom of the cabinet interior to provide oversize fast-freezing capacity. An alarm bell warns of temperature rise within the freezer.

All features of other International Harvester freezers are included—handsome design; all-steel, lifetime construction; DuLux Enamel finish; Vac-U-Seal insulation; Frost-Lok breaker strip; automatic temperature control; spring counter balanced hinges to hold lid open and provide finger-tip control.

Four-color advertising will announce the new International Harvester 15 FC Freezer to 10,000,000 readers. National advertising of the model will continue through '49.

Yes, the International Harvester 15 FC Freezer presents new opportunities. Alert dealers will be quick to cash in.

INTERNATIONAL HARVESTER COMPANY
180 North Michigan Avenue Chicago 1, Illinois
© International Harvester Co.

INTERNATIONAL HARVESTER
Refrigeration

THE INTERNATIONAL HARVESTER SYSTEM OF FOOD PRESERVATION

Distributorship Grows from 120 Sq. Ft. Room To 17,000 Sq. Ft. Building In Three Years

BIRMINGHAM, Ala.—Three years after launching a wholesale distributorship in a 10-ft. by 12-ft. room in a local warehouse, L. S. Hart and W. L. Greer have occupied a new building of their own, and their business covers all Alabama and north-west Florida.

Hart and Greer are the operators of Hart-Greer, Inc., distributor of a kitchen line, radios, electrical and gas appliances, and commercial refrigeration equipment. The firm also handles evaporative coolers, fluorescent lighting equipment, and other items.

The new brick building contains 14,000 sq. ft. of warehouse space and 3,000 sq. ft. of office space. Its interior, designed by Hart and Greer themselves, is featured by light pastel green walls and 65-ft. candle fluorescent lighting "restful to the eyes of workers."

Shipping and receiving ramps in the warehouse make it possible to carry on business in any kind of weather. The warehouse was designed to utilize every inch of space.

The new home was created out of years of experience in the business of selling household appliances. For 14 years, both men were employed in the appliance department of Moore-Handley Hardware Co., Inc., in Birmingham.

And both got an early start in the field. In 1921, Greer hooked up one of the first two crystal radio sets in this city. Hart was the first Frigidaire salesman here.

Hart was later retail sales manager for Frigidaire in Birmingham. He joined Moore-Handley after the Frigidaire distributorship was taken over by the factory.

Greer had been in the electrical contracting business in Ensley and Bessemer before going with Moore-Handley as a retail salesman. He was in charge of the electrical department of Moore-Handley in Tuscaloosa, Ala., from 1931 to 1935.

In 1945, the pair, having a small capital, decided to go into business for themselves. Operating out of the small room in the warehouse, they started out with the Youngstown kitchen line. They worked as their own salesmen.

A year later, they were able to branch out to an office headquarters and two warehouses and to hire E. D. Galloway as a salesman. Galloway had worked for Hart at Moore-Handley when the latter was handling sales promotion.

Employees of Hart-Greer share in profits of the business. They are given insurance and the company sponsors parties for them at Christmas and during the summer. Emphasis is placed on training of salesmen and schools are conducted at the Birmingham headquarters and elsewhere in the field.

Hart and Greer are strong believers in keeping in close touch with their customers. They even keep open their office doors so as not to miss seeing those who visit headquarters.

Shrimp Place Installs Window Conditioners

MIAMI, Fla.—Six individually controlled Fedders window-type air conditioners, located so as to meet rapidly changing load conditions, were recently installed in a noted specialty restaurant here, the Shrimp Place.

The window-type units were selected by Ma and Pa Davis, proprietors, over a central cooling system so that the restaurant could be properly cooled and ventilated whether there were one or two customers or a capacity 90 in the eatery.

The Shrimp Place has an excellent reputation for its fried shrimp, chicken, turtle steak, and key lime pie.

Supermarket Bait Hook For Fisherman's Mate

SYRACUSE, N. Y.—Acme Super Market, 1000 S. Geddes St., promoted its refrigerated self-service fish department with an eye-catching newspaper advertisement built around the caption: "Hubby Gone A-Fishing?"

Copy continued: "Surprise him with a fish dinner. Do your fishing in modern self-service fish cases. You can make certain your Isaac Walton has the fish dinner he's counting on, by doing your fishing in our refrigerated seafood cases."

"Your luck can't fail, and what's more you can pick your catch from many easy to serve, economical items, including scallops, shrimp, lobster tails, and a variety of fillets."

Custom-Built Salad Refrigerator



The second fixture from the left foreground is the custom-built refrigerated salad case recently installed at the Old Plantation Cafe. With this case salads may be made up in advance and stored without loss of crispness and flavor, the cafe has found.

Novel Case Allows 'Pre-Preparation' Of Special Salads at Old Plantation

ESTES PARK, Colo.—Such problems in high-speed salad preparation as soggy and over-crispness have been solved in the kitchen of the Old Plantation Cafe here through installation of a two-temperature refrigerated salad case developed by C. Warren Chapman, owner.

The Old Plantation Cafe, open only in the summer months, averages approximately 2,200 meals a day. Most of the meals involve six varieties of salad in which the restaurant specializes.

Prior to installation of the refrigerator, Chapman had experimented with "pre-preparation" of all salads, only to find them soggy and unattractive by service time. It was, of course, impractical to prepare all salads to order, with a heavy daily volume of patrons. Making up salads in advance and storing them in an ordinary reach-in refrigerator was likewise not practical, inasmuch as temperatures were too low and a tasteless salad resulted.

The salad case now in use consists of two refrigerated compartments, one above the other. The upper section is enclosed in Thermopane glass.

The lower section, of 20-cu. ft. capacity, is kept at 54°. In it are stored vegetables, fruits, nuts, cottage cheese, etc., utilized in making up the salads.

The upper section is kept at 41°, Chapman has found this temperature ideal for crispness, appearance, and flavor.

Vegetables for the following day's

salads are stored overnight in the lower "crisper" to bring them to a perfect condition. As fast as they are prepared, salads are put in the upper section where they are kept until called for by waitresses.

The two temperatures in the refrigerator are maintained by two separate solenoid valves connected to a single condensing unit in the basement. The refrigerator was custom-built for the Old Plantation Cafe by a Denver refrigeration contractor.

Jones Bros. Moves To Larger Quarters

MARSHALL, Tex. — The Jones Brothers Refrigeration Co., local commercial refrigeration and air conditioning dealer, recently moved to larger quarters at S. Washington Ave. and Pinecrest Dr. here, Oscar B. Jones, one of the owners, has announced.

The new location provides greater display and shop accommodations and adequate parking space, he said. The firm was formerly located at 309 E. Bowie St.

Co-owners of the company are Jones' two sons, Wesley and Oscar B., Jr. The concern recently was awarded a contract to install a 30-ton year-round air conditioning system in the new Masonic Temple at Kilgore currently under construction, according to Jones. It also shipped a beverage-food cabinet to a firm in Puerto Rico.

How McCray

Koldflo keeps you ahead of competition!

Behind McCray Koldflo is the engineering "know how" that has made possible every modern improvement in commercial refrigeration.

Only the highest quality features are found in the McCray line. The McCray Koldflo system is built for low-cost operation, ease of installation and servicing, and utmost convenience. All Reach-Ins come self-contained. Remote installations are available where required in service and self-service Display Cases.

Back of every McCray product is a 58-year-old reputation for industry leadership... consistent national advertising supported by sales promotion and merchandising plans.

The ready acceptance of all McCray Koldflo units makes it the line most preferred by dealers everywhere.

Go Modern with...

McCray KOLDFLO

WRITE TODAY for complete information on the McCray Koldflo line that makes it the choice of leading dealers in the commercial refrigeration industry.

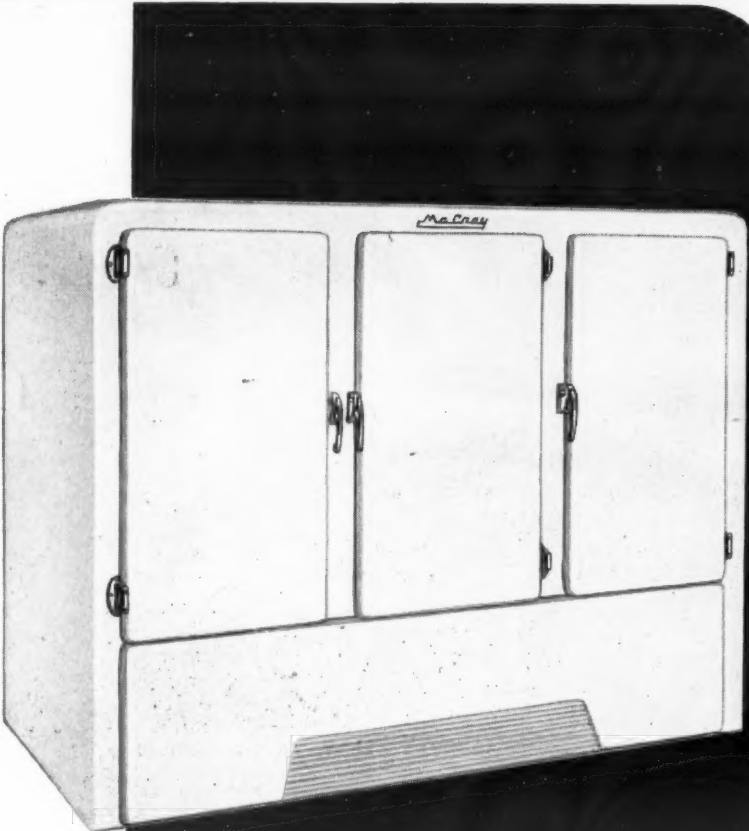
McCray Refrigerator Company, 895 McCray Court, Kendallville, Indiana.

Please send me full details on all Reach-Ins and both service and self-service Display Cases in the McCray Koldflo line.

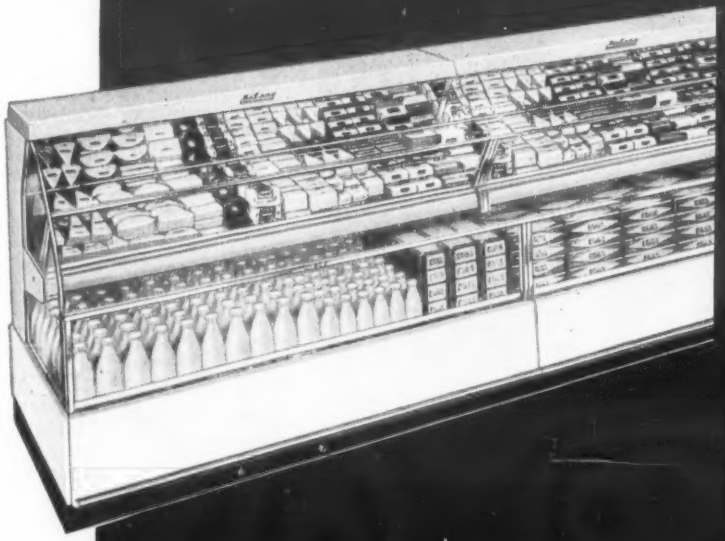
NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____



60 cu. ft. Reach-In for restaurants and institutions. Also available in 20, 30 and 40 cu. ft. sizes for all commercial refrigeration needs.



Double-Deck Dairy Display Case, starting, new addition to McCray's complete line of both service and self-service Display Cases.

4 FULL DISPLAY LEVELS MORE SALES-MORE PROFITS

FULL VISION DISPLAY CASE

Hinged or Sliding Rubber Doors.

... available for immediate delivery. ...

SELF-CONTAINED and REMOTE in 4, 5 and 6 ft.

lengths.



YOUR KEY TO BETTER REFRIGERATION

COLDIN CABINET CO., Inc.

2800 Webster Avenue, Bronx 58, N. Y. Tel. SEdwick 3-5833

FRANCHISES AVAILABLE
WRITE FOR COMPLETE INFORMATION

EVERY COMMERCIAL REFRIGERATION DISTRIBUTOR

NOT AT PRESENT USING COMMERCIAL CREDIT PLAN FINANCING

SERVICE IS URGED TO INVESTIGATE ITS ADVANTAGES NOW.

ELIGIBLE INSTALLATIONS INCLUDE: ROOM COOLERS; BEER

DISPENSING EQUIPMENT; REACH-IN CABINETS; WALK-IN

CABINETS; ICE CREAM CABINETS; FROZEN FOOD CABINETS;

DISPLAY CASES; MILK COOLERS; FARM FREEZERS; AIR

CONDITIONING EQUIPMENT; BEVERAGE COOLERS AND OTHER

ALLIED AND MISCELLANEOUS COMMERCIAL REFRIGERATION

PRODUCTS. FOR INFORMATION, APPLICATION AND SALES

FORMS WRITE ANY COMMERCIAL CREDIT OFFICE.

COMMERCIAL CREDIT CORPORATION

A Subsidiary of Commercial Credit Company, Baltimore

MORE THAN 300 OFFICES IN PRINCIPAL CITIES OF THE UNITED STATES AND CANADA

see your **"DETROIT"**
WHOLESALE
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Expansion Valves
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"DETROIT" 2810

DETROIT LUBRICATOR COMPANY General Offices: 5900 TRUMBULL AVENUE
DETROIT 8, MICHIGAN

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"Detroit" Heating and Refrigeration Controls • Engine Safety Controls • Float Valves and Oil Burner Accessories
"Detroit" Expansion Valves and Refrigeration Accessories • Stationary and Locomotive Lubricators
EXPORT DEPARTMENT—Box 218, Ridgefield, New Jersey

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)
which spur human beings into improving their conditions.

Lacking both incentives and goods, the People will perish. All studies of history prove this point.

We're Surprised

That book, "One Foot in the Door," continues to astonish the author and publishers with the chain-reaction of its acceptance. It's enjoying a wonderful "repeat business." That is, many purchasers of one copy order from half-a-dozen to 500 more copies after they've read it. They want their associates to read it, too.

And the "reviews" continue to arrive, too. Take these two:

"The organizing of specialty selling by the late John H. Patterson, President of the National Cash Register Co., is the basis of the book 'One Foot in the Door' by George F. Taubeneck, Publisher of AIR CONDITIONING & REFRIGERATION NEWS. It is filled with appliance selling ideas, and every page is interesting.

"We will put in a further plug for the book by saying that you can obtain a copy from Conjure House Division, Business News Publishing Co., Detroit, Mich. The last price we heard was \$3.00, and it should be worth many times three bucks to anyone in the appliance business.

"It isn't a long-haired job either. It is full of stories like the following, which is used to open the chapter on 'There's Always One Best Way to Tell Your Story':

"Believe it or not, it sometimes happens that a traveling salesman gets religion. There is a natural affinity between the padre and the salesman; and the borderline between the two mentalities—and approaches to life—is cut as fine as in the divisional hump which guards the pass between love and hate.

"Anyway, this fabled salesman of our story was 'converted,' and wanted to 'get right with God' by confessing his most grievous sins. After reviewing his misspent, if highly satisfactory, life he finally decided that his most onerous sinning came under the category of infidelity.

"So he resolved to make a clean breast of things to his wife. The padre approved, after hearing the salesman's confession, but admonished the errant repentant to secure his wife's forgiveness before he began the new life.

"Bravely the salesman faced it.

"Darling," he said to the wife. "I seek your forgiveness. I have been unfaithful to you."

"I thought so all along," rejoined his frau, grimly. "Who was it? That blond Mrs. Dope upstairs?"

"No, honey, it wasn't Mrs. Dope. And even if it was, I wouldn't tell you. My confession will not involve anyone else. All I ask is your forgiveness."

"Well, was it that red-headed bobby-soxer across the street?"

"No, wife, it wasn't. But look! I'm not going to tell you who it was."

"Okay, then, it must have been that brunette in the corner drugstore that you flirt with when you buy your cigars."

"Honestly," replied the repentant husband, "it wasn't that brunette."

"His wife subsided in speculative but definitely unforgiving silence.

"Next day he saw the padre, who asked:

"Did your wife forgive you?"

"No," responded the salesman, "but she did give me three new leads."—WISCONSIN POWER & LIGHT CO. "Dealer Doings."

And this one:

"ONE FOOT IN THE DOOR, by George F. Taubeneck; Conjure House, Detroit, Mich. A big 400-page book on the humorous side of merchandising, by a noted editor, traveler, and business authority. Specialty selling and its sadder as well as brighter aspects is emphasized, in a memorable book."—WESTCHESTER FEATURE SYNDICATE.

It's the Give In It

This quotation from a recent article by C. E. Flynn deserves extensive circulation:

"How far do you think a set of those heavy steel tires would run on paving before wearing out?" I asked a blacksmith who was putting a new set on a heavy log wagon.

"Oh, about 3,000 miles," he answered. "These are the best steel tires made, but they won't last very long."

"What would be the top mileage on those tires?" I asked an automobile mechanic who was putting a new set of rubber "balloons" on a 1941 motor car.

"Hard to say what the top would be," he replied. "Some run as much as 40 or 50,000 miles. These should give at least 30,000, I should say."

"Do you mean to say that a rubber tire will run 10 times as far as a steel one before wearing out?" I demanded.

"That's right," he answered. "You see, it's the give in the tire that makes the difference."

"A great light began to dawn upon me. Strange as it may seem, in some situations rubber outwears steel. It does so because it is more pliable and relaxed. It fits itself to the irregular surface of the road, and thus reduces wear and tear to the minimum.

"The rigid steel wagon tire never shapes itself to anything, but crushes and grinds its way along. It takes the full shock of each bump, and ultimately it is worn out by its own hardness. Rubber runs longer because it has give in it.

"This is not a freak of nature. It's a fact which conforms to a law of life. It may seem a paradox, but it is true. Hardness of spirit, attitude, viewpoint, may seem like a protection to a person, but it is likely to prove just the opposite. It takes relaxed pliability to survive the bumps.

"The person who solves the problem most quickly and easily is not likely to be the one who gets tough, but the one who adapts himself to situations.

"Pliability outlasts hardness. It's the give in it that counts."

Salesmen: Please Note

"What is conversation?" asked DeMaupassant. "Mystery! It is the art of never seeming wearisome, of knowing how to say everything interestingly, of pleasing with no matter what, of fascinating with nothing at all."

Aesop Didn't Write This

A Modern Fable:

It came to pass that for many moons the appliance dealer lived in a beautiful dream-world. As fast as he received an electrical appliance, he placed it on the floor, and immediately some customer came and the item was sold.

And that was good.

But, behold, there came a morning when an appliance the merchant had placed on the floor the day before was still there. And it remained there the next day, and the next, and the next, until many days had passed. Then bespoke the merchant:

"This gadget is no good. It cannot be sold."

And he sent a messenger to tell his distributor to send him something that could be sold. But as the days passed, many new items that the appliance merchant received remained on his floor day after day, even as had the one above described.

And the appliance merchant became sore perplexed.

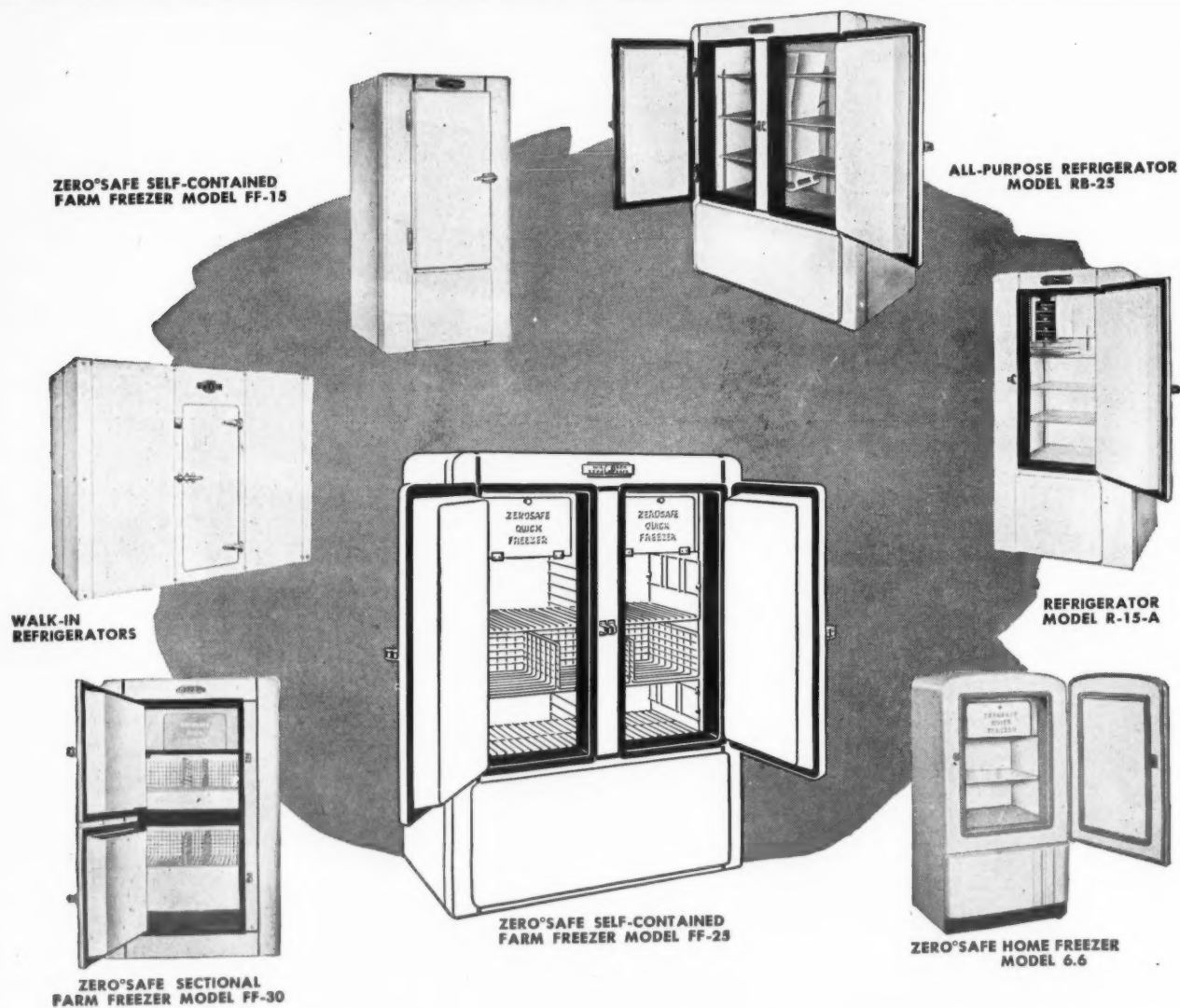
One day there came to him a certain one of his elder clerks who said: "Master, I remember in the days of my fathers that in order to sell wares we placed notices and descriptions of our gadgets in public places, and when customers came to our shop we talked diligently and meaningfully to them about the benefits our gadgets would bring to the customer. Can it not be that such action would be proper in our place of business?"

Then saith the merchant:

"Thou sayest wisely and so shall we do. But first let me see a man about a pair of shoe laces."

And, after the manner of his kind, he continued to postpone taking action day after day, always looking for some easier way to make a sale. And day by day his business declined until he became sore afraid. . . .

... AND THAT WAS BAD.



WILSON Means Business FOR YOU!

Naturally you are interested in selling a line of freezers and refrigerators that fills every need . . . fits every pocketbook . . . and is backed by a sound advertising and merchandising program. That's why it will pay you to investigate the complete line of Wilson freezers and refrigerators. Backed by the same engineering that made Wilson milk coolers famous, the Wilson line is rugged in construction, handsome in appearance, economical in operation, and extremely versatile when it comes to type, size, and price. Farms, homes, institutions and commercial establishments are all prospects for Wilson Products.

WILSON
REFRIGERATION, INC.

DIVISION OF WILSON CABINET CO., INC.
SMYRNA, DELAWARE

MORE PROSPECTS
MORE PROFITS
MORE SALES

COLD WATER FOR USERS
Cold Cash for Dealers
Drinking Water Specialists for Over 50 Years!



PURO FILTER CORPORATION OF AMERICA
436-440 Lafayette Street, New York 3, N. Y.
Cable address—"Centadrink, New York"

Frigidaire Dealer Enters Low Bid on Refrigerators For Utica Housing Units

UTICA, N. Y.—The Onondaga Supply Co., Frigidaire dealer, put in the low bid on supplying 146 6-cu. ft. electric refrigerators for the apartments in Washington Courts. Its price was \$21,180.22.

Langdon & Hughes Co., General Electric distributor, bid \$21,729.90, and the Nash-Kelvinator Corp., Buffalo, bid \$23,352.70.

The bids were opened in the Municipal Housing Authority offices at Washington Courts by Frank A. Emma, chairman of the authority. George Moore, executive secretary, said the bids must be passed upon by the full authority and by the State Division of Housing before a contract is awarded.

The price per refrigerator unit in the bid of the Onondaga Supply Co. was \$145.07. The Langdon & Hughes unit bid was \$148.15, and the Nash-Kelvinator unit bid was \$159.95. Moore said these prices do not include taxes. The authority does not have to pay Federal taxes on its purchases, he explained.

The refrigerators are to replace ice refrigerators that were installed in Washington Courts during the war.

Coleman Buys Hoosier Plant To Make Gas, Oil Heaters

WICHITA, Kan.—The Coleman Co., Inc., here has purchased a plant in La Porte, Ind. and intends to start production on gas and oil-burning heaters there on Sept. 1. Clarence Coleman, vice president in charge of production, has announced.

The plant, built during the war and tooled and equipped to produce domestic water heaters, formerly belonged to Hoosier Industries, Inc. Lee P. Corsbie, Hoosier president, will continue as general manager of the plant, Coleman said.

July Vacuum Cleaner Sales Drop 18.7% Below Last Year

CLEVELAND—Due to normal seasonal decreases during vacation periods and the shutdown of one factory because of labor negotiations, factory sales of standard household vacuum cleaners in July dropped 10.3% below June and 18.7% below July of last year, according to C. G. Frantz, secretary-treasurer of the Vacuum Cleaner Manufacturers Association.

Sales numbered 229,537 units in July as compared to 256,071 in June and 282,165 in July last year.

For the first seven months of the year, factory sales were 2,039,989 units as compared to 2,111,169 last year, a drop of 3.4%.

Customers Hit Silver Dollar Jack-Pot at Dealer's Sale

ROCHESTER, N. Y.—Major Electric Products here conducted a successful three-day promotion on electrical appliances during which silver dollars were given with each appliance purchase.

The promotion was built around the theme of "Mr. Major" coming to town for a "Silver Dollar Jubilee." "Mr. Major" was a toy soldier character created for the event, featured in newspaper advertisements.

One hundred silver dollars were given with every purchase of a deluxe refrigerator with freezer locker or home freezer. Fifty silver dollars were given with each electric range or electric water heater.

Thirty five silver dollars were given with every purchase of an electric ironer and 30 silver dollars with every purchase of a sink, space heater, or gas water heater. Twenty-five silver dollars were given with every purchase of a washing machine. Twenty silver dollars were given with each vacuum cleaner purchase.

Bi-States Distributes Admiral Line In Iowa

CHICAGO—Distribution rights for Admiral electric ranges and refrigerators, radios, phonographs, and television sets for 70 Iowa counties have been consigned to Bi-States Distributing Corp., 2 Tenth Street, Des Moines.

Headed up by Pierce Houser the Bi-States Distributing Corp. was formed last year and operates as a company over Nebraska and Iowa with headquarters in Omaha. Prior to the appointment of the Des Moines branch to cover Iowa the franchise for the Nebraska territory had been awarded to the Omaha office.

Four sales representatives work out of the Des Moines branch which is managed by C. A. Gabiline. Gabiline joined Bi-States after several years with the Coleman Heating Equipment Co. and for 10 years prior to then had operated an electrical appliance retail outlet at Burlington, Iowa.

Explosion-Proof



John G. "Dutch" Wehrwein, director of development for Sunroc Refrigeration Co., shows off a stripped down model of the firm's explosion-proof water cooler, which he helped to develop. The cooler uses the static condenser principle in water coolers for the first time.

Charlotte Distributors Plan First Carolinas Appliance Exposition, Sept. 21-24

CHARLOTTE, N. C.—More than 20 major appliances distributors will participate in the first annual Carolinas Appliance Show and Exposition here Sept. 21 to 24.

The event is being sponsored by the Charlotte Radio and Appliance Distributors Association in cooperation with the *Charlotte Observer*.

Some 90 booths are planned, with the show being open to dealers only during the daytime. A stage show will be presented at 3 p.m. daily for dealers, but at night, the public will be admitted.

As part of the entertainment, Tony Pastor's orchestra and the Imperial Hawaiian Revue have been engaged.

The show is being managed by F. Earl Crawford, promotion manager of the newspaper. Joe Pleasants of the Allison Erwin Co. is president of the appliance association.

When the customer is ON THE FENCE

POINT TO THE DU PONT SEAL

It identifies America's leading home appliance finish!

It's good business to let the "Dulux" seal speak for itself. It does so with authority, saying: "Here is a finish that gives years of service . . . in color retention, mar resistance, and outstanding good looks." And you can back that up by telling your prospects that "Dulux" enamel is rigidly pre-tested!

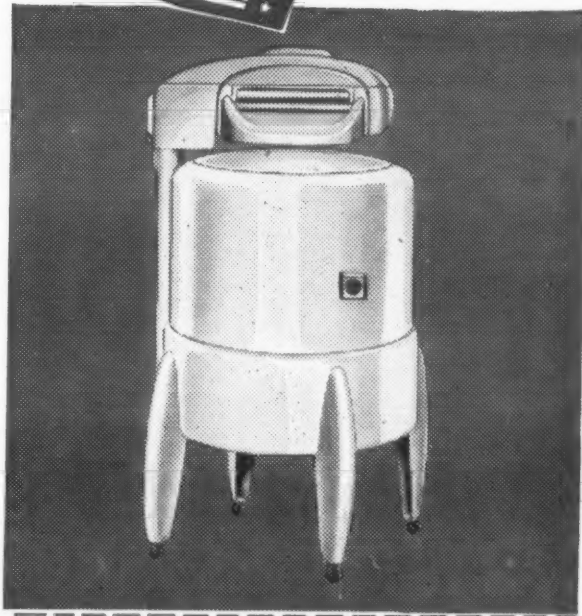
If your manufacturer supplies you "Dulux"-finished ware without the seal, ask him to include it hereafter. Use it to help clinch sales faster!

Here's selling made easier! FREE new informative booklet gives you profitable "selling points" for appliances finished with DULUX. Send coupon today for your copy!

DU PONT

DULUX

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY



E. I. du Pont de Nemours & Co. (Inc.)
Finishes Division, Dept. A.C. 80
Wilmington 98, Delaware

Please send, free of charge, your new illustrated booklet, "Inside Information on the Outside."

Name _____ Title _____
Firm _____
Address _____
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for draft and bottle
beverage coolers...

IDEAL
Speed-Freeze
PRODUCTS

IDEAL COOLER CORPORATION
2953 EASTON AVE., ST. LOUIS 6, MO.

GET GENUINE
WAGNER
Bearings



Wagner Bimetal sleeve bearings resist seizure, last indefinitely when properly lubricated. They come to you diamond bored to specified size; simply press in according to instructions, and reassemble motor. They are also available unbored for undersize shafts. Get them now from your Wagner distributor. Name on request.

Wagner Electric Corporation
6471 Plymouth Avenue, St. Louis 14, Mo., U.S.A.
ELECTRICAL AND AUTOMOTIVE PRODUCTS

Having Fun with a Freezer



"Food freezing parties" is the latest promotional idea offered by Hotpoint, Inc. to its home freezer dealers. The dealer plays host, inviting good prospects to prepare and freeze his food in his freezers.

Admiral Pushes Video In 'Biggest-In-History' Fall Advertising Campaign

CHICAGO — Admiral Corp.'s biggest-in-history fall and winter sales promotion and advertising campaign was explained to Admiral's regional sales managers at the Edgewater Beach hotel here recently.

According to Seymour Mintz, director of advertising, the kick-off for Admiral's hard-hitting fall campaign will be early in September when double-page newspaper spreads will appear simultaneously in all metropolitan television areas. Included in the fall budget will be \$500,000 allotted for national media and \$1,500,000 for local cooperative ads. Emphasis will be on video sets with Admiral's production of television sets scheduled to hit 18,000 monthly by September.

Attending the meeting were company executives, regional managers, and a representative of Crutenden & Eger, advertising agency for Admiral.

A Different Slant

Refrigerator Rebuilding Department Is Key to Future Sales, Dealer Believes

WILMINGTON, Del. — Albertus Chance, manager of the appliance division of the Auto Sales Co. here, has a slightly different slant on the future of the appliance business and he is preparing for it now.

Chance believes that as a saturation point in appliance purchases approaches, used appliance sales will comprise a big part of the dealer's business.

So Chance has concentrated his efforts on building up a strong refrigerator rebuilding department that already is capable of standing on its own feet profitwise. This department, according to Chance, has built up the firm's confidence in its abilities to such an extent, that the firm offers a one-year guarantee on any rebuilt unit.

"We keep a 15-man service personnel section trained in refrigerator rebuilding," Chance said, "and a shop equipped to give maintenance and repair on electrical boxes that is comparable to that in a factory."

"The reputation we have developed for excellent rebuilds allows us to pay a little more than usual for a trade-in or used model, as in turn we can get a higher mark-up."

Big Profits on Rebuilds

"In a recent month, we sold 40 new models and 18 rebuilt refrigerators. The total profits on the rebuilds was greater than on the new refrigerators."

The mechanical department is showing a profit on its work because Chance splits the profits on rebuilt units between it and the sales department. "Inasmuch as our mechanics work on rebuilds that are sold, it only seemed fair that this department was entitled to a portion of the profits," he said.

Formerly the department was credited only with profits on repair jobs and was, therefore, operating at a loss.

The mechanics work both on rebuilding and on outside service calls. They are paid a salary plus a commission on all outside work. To split up the outside work evenly and give all a chance to make extra money, the mechanics are sent out on a rotation system.

Though he is preparing for the time when used units will be in great demand, Chance still sees a bright local picture for new appliances.

He asserts that he can sell all the new refrigerators he can obtain now. He even sees a large local untapped market for this product that he is expanding his facilities to serve.

To this end, he is converting a 40 by 40-ft. storeroom at the rear of the main showroom into a demonstration area.

Schools in the operation of refrigerators, freezers, and other appliances plus an outside selling campaign are scheduled for the fall.

Meat Prices vs. Freezer Sales

Chance attempted a home freezer promotion a short time ago without much success. However, he profited from the experience by finding out just where he went wrong.

"It seems as if food freezer interest varies directly with food prices," Chance explained, "and our promotion got underway just when it looked as if meat prices were going to drop. Though this proved to be a false alarm, it was enough to spoil our campaign."

Chance's promotion was a direct-mail effort to all customers who had purchased refrigerators with 9-cu. ft. or more capacity. These customers, he figured, would be the logical ones to approach for food freezers. They were in higher-income brackets and could make good use of a freezer.

But, he found, with newspapers announcing lower meat costs, the prospects felt that they did not care to store their meat purchases and could buy meat any time.

Chance has since started to revisit these customers and is carrying with him newspaper clippings telling of the high meat prices. He feels that by explaining how customers can save on their meat by buying large quantities and storing them at home, food freezers can be sold more easily.

"If the price of meat worked against us at one time," Chance argues, "I see no reason why we shouldn't take advantage of current price increases to make it work for us."

This Really Does It!

... adds the "Magic Touch" to your refrigerator selling



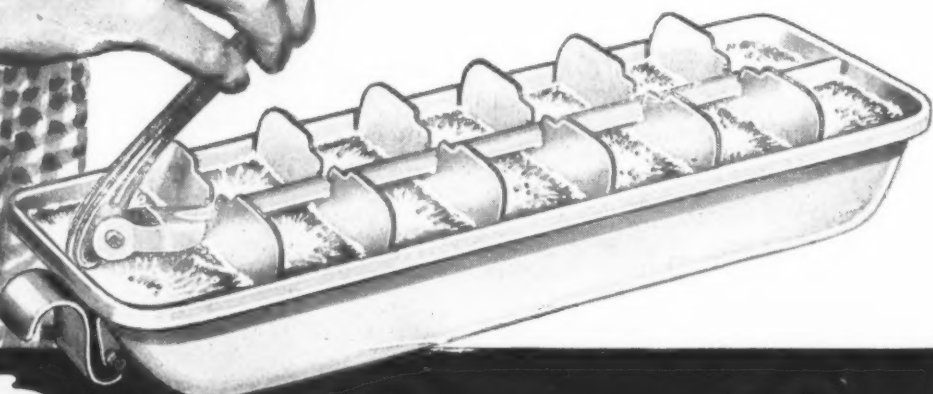
Yes, the Inland "Magic Touch" Ice Cube Tray gives you real assistance in your refrigerator selling. It's a sales-closing demonstration.

You simply lift the "Magic Touch" lever—that frees the grid. Then you lift the grid right out of the tray—and there are the ice cubes—all of them separate, free and dry in the tray.

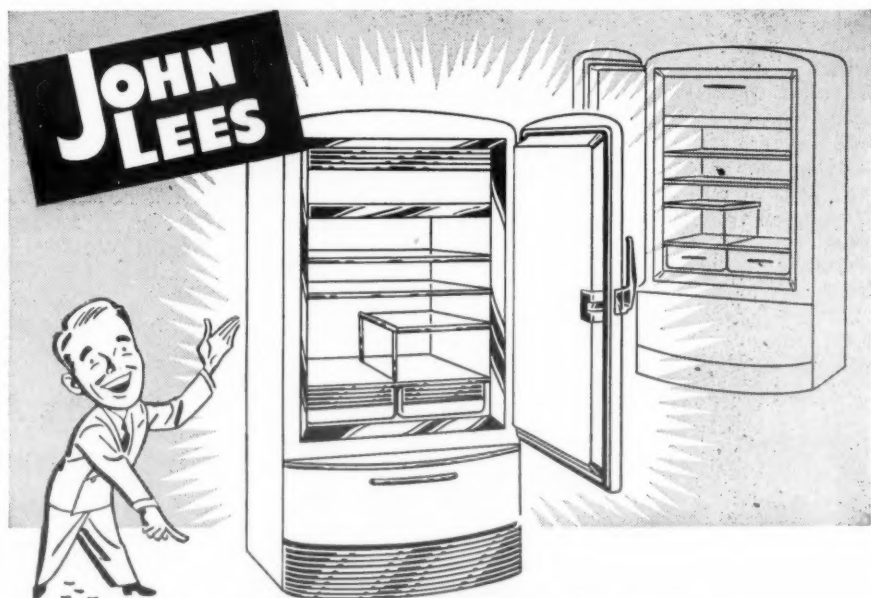
Tell your prospects that they do not have to handle and twist icy blocks of frozen cubes. There are no unhandy separate ice receptacles. There is no muss, fuss or bother. With the Inland "Magic Touch" Tray they get real ice cube convenience.

So, take advantage of the sales appeal of this nationally advertised Inland tray. Insist that your new refrigerators come equipped with them. And buy Inland "Magic Touch" trays for replacement sales.

INLAND MANUFACTURING DIVISION
General Motors Corporation, Dayton, Ohio



"Magic Touch"
ICE TRAYS BY INLAND



USE JOHN LEES MOULDING FOR
**BIGGER SALES
HIGHER PROFITS!**

● Your units gleam with Sales Power when you use stainless steel moulding by JOHN LEES. Expertly designed, these mouldings give that cool, smart appearance which draws instant attention and rolls sales figures upward. JOHN LEES mouldings are fabricated for decorative trim, frame assemblies, functional assemblies and channels plus countless other applications. Either mechanical or electrolytic polishing. Standard or special sections. Write for catalog and free estimates.

JOHN LEES Division of THE SERRICK CORP.
Kilgore Avenue Muncie, Indiana

Serving Customers A Cup of Coffee Brings Thousands of Dollars In Business to Dealer

WEST LOS ANGELES — Offering patrons a cup of coffee when they drop into his new appliance store here is rated the best merchandising idea that G-E Dealer Carl G. Hokanson has had.

Says Appliance Manager Eberts, "The expense of our coffee bar is more than paid for just by getting the customer relaxed and in an informal and friendly mood."

"A cup of coffee served the proper way has made thousands of dollars worth of sales for us. It fits our neighborhood and the people we deal with."

But serving coffee is not the only unusual feature of Hokanson's. The entire store is decorated in a "Gay Nineties" motif. Chairs and tables for customers' convenience are made of wrought iron frames in a pink color.

Walls are of green, with the small appliance and radio display tables in pink. The wallpaper is covered with scenes of life in the '90's. Wall plaques contain raised figures of well-known characters of the period. A colorful canopy covers the coffee bar and operating kitchen.

The coffee bar is on a mezzanine at the rear of the store and is part of a complete and operating G-E equipped kitchen. Washer, dryer, range, disposal, dishwasher, refrigerator, and coffeemaker are all set up ready for demonstration.

When a customer enters the store and displays an interest in a particular appliance, a salesman approaches and invites her back to the operating kitchen to see it work—and to have a cup of coffee.

If children accompany the customer, they are given ice cream. Then, over their coffee, the salesman and the customer can talk about the appliance she is interested in without the usual formality that exists between salesmen and prospects, according to Ebert.

The coffee bar, he said, costs about \$30 to \$40 per month and is taken care of by the salesmen. There is even a coffee bean grinder there so that the customers are always assured of fresh coffee.

After the coffee is consumed, the salesman then has an opportunity to demonstrate the coffeemaker, the dishwasher in washing the cups and saucers, and the disposal unit in getting rid of the grounds.

In showing off the latter appliance, the salesman points to a transparent plastic section in the sink plumbing that shows the customer just how fine her garbage is ground. Bits of wood are dropped into the disposal to add effectiveness to the demonstration.

For range demonstrations, however, the customer is invited back at a specified time when a trained home economist will cook a complete meal on one.

In addition to the operating kitchen, the store also has a complete kitchen layout set up in the front of the store. A model service porch arrangement, containing washer, ironer, and dryer, is also set up and decorated.

Hokanson has been in business for a number of years, starting out as an air conditioning dealer. Even though he has expanded to selling a complete line of home appliances, he continues to handle air conditioning.

Hokanson had originally planned to build his appliance store in Beverly Hills. However, building and parking restrictions there influenced him to switch to West Los Angeles.

Hokanson had been so sure that he was going to build in Beverly Hills, though, that he went ahead and published a colorful 25-page brochure, based on a "Gay Nineties" theme, inviting the "carriage trade" to preview the store.

When the switch was made, the present building was constructed so much like the one he had planned for Beverly Hills, that he needed only to insert a change of address to preserve the value of the booklet.

He blanketed his trade area with 60,000 copies of the brochure and received a "very gratifying" response.

Only an auditorium is missing from the present building to make it just like the one planned. "And we haven't given up on that yet," Hokanson asserted.



The elaborate curves and curliques of the "Gay Nineties" era are found throughout the decorative design of Hokanson's, West Los Angeles G-E dealer. In the interior view above, they form the basic design for the appliance backdrops and the small appliance counter.

A Pleasant Place To Talk--And Sell



On the mezzanine at the rear of Hokanson's is the coffee bar and operating kitchen. Here salesmen and customers sit and talk business over a cup of coffee prepared by the salesman. All appliances in this kitchen are hooked up and ready for instant demonstration. The picture over the sink shows a matron of the '90's leaning out of her carriage to catch the whispered message of a uniformed doorman. It formed the cover of the promotion booklet Hokanson distributed to announce a "confidential to the carriage trade" preview of the opening of his store.

No defrosting



1
Dual-Temp Home Freezer really quick-freezes at 15° below zero. Stores up to 70 lbs. of frozen food safely for months. A big home freezer right in your refrigerator!

2
Dual-Temp Moist Cold Compartment never requires defrosting! High humidity keeps food fresh and moist without covering dishes. Lots more room for foods!

3
Dual-Temp Sterilamp kills germs... helps preserve food longer.

4
Dual-Temp Moistrol... the drip tray that automatically empties itself. Many more outstanding features... see Dual-Temp at your Admiral dealer, today.

ONLY DUAL-TEMP GIVES YOU ALL 4 FEATURES!

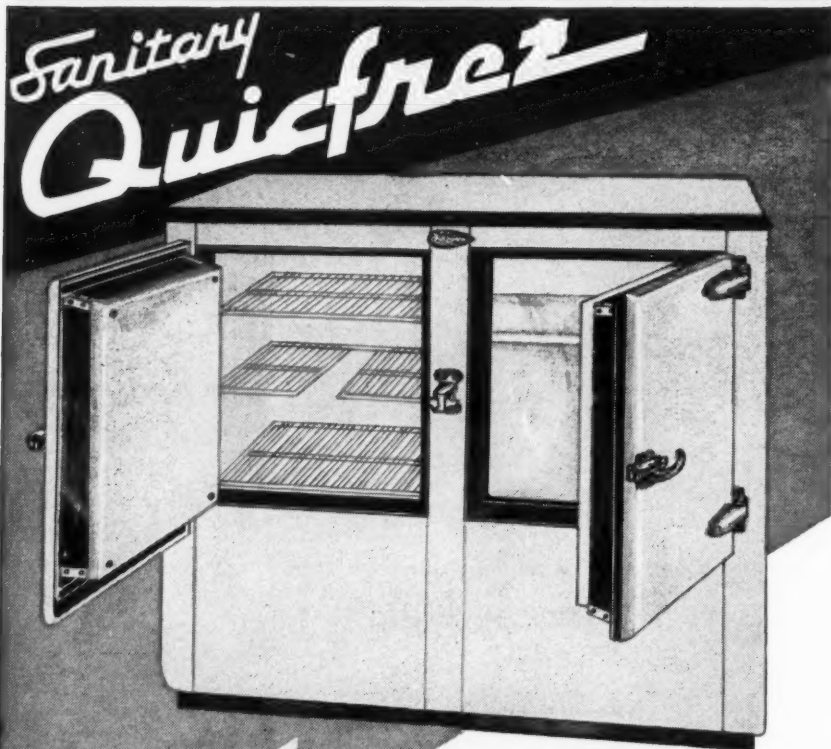


ADMIRAL ELECTRIC RANGE
America's most beautiful electric range with simplified automatic cooking. Just 3 controls to set... cooks while you're away! Large, flexible oven provides 17 different rack positions. Flex-O-Heat "no-skip" controls give the exact amount of heat needed. See the Admiral today!

Admiral

DUAL-TEMP Refrigerators

Performance proved in over 200,000 kitchens!



TRIZONE

For Every Food Keeping Need
4.5 cu.ft. of normal refrigerator operating at 40° Ave. with 6.25 cu.ft. of zero frozen storage for 250-300 lbs. of meat. 48½"Wx28"Dx40¾"H. No. C-1148 **\$399.50**

SANITARY REFRIGERATOR CO.
FOND DU LAC, WISCONSIN
Manufacturers of Quality Refrigerators for Over 40 Years
QUICFREEZ Farm Locker Plants Since 1939

Field Report

What are dealers, distributors, servicemen, and the others on the industry's front lines thinking about today? These "Field Reports"—extremely popular in prewar days—now give NEWS readers the latest ideas of the men closest to the all-important consumer.

Concentration on One Make of Trade-Ins Keeps Neighborhood Dealer's Volume Up

By George M. Hanning

CLEVELAND—By more or less concentrating their trade-ins on a single brand of refrigerator, Gordon J. Agnew and W. J. Russell have found selling overhauled, used units a profitable venture.

The pair operate a small neighborhood dealership under the name Agnew-Russell Co. on Cleveland's west side, specializing in authorized Grunow service.

It is from their service business that most of their trade-ins come, they note. All of these are Grunow units, a make with which they are thoroughly familiar.

"There are lots of Grunow refrigerators in Cleveland and, as the manufacturer quit making them in 1937, all of them are at least 11 years old," Agnew explained.

"We get a lot of calls for overhauling the units, but many times the customer does not want to spend the \$50 to \$75 it costs for the job. She would rather invest the money in a new refrigerator.

"So we bring her in to the store and show her our Frigidaire line. By paying up to \$15 for her old unit, we make a sale on a new Frigidaire and still get the overhaul job, Agnew continued.

FIGURING THE PROFIT

"If we sell the Grunow for from \$75 to \$95 after overhauling it, we have still made our profit on the overhaul—plus the profit from the sale of the new Frigidaire."

Agnew pointed out that at a \$75 to \$95 selling price, his firm could not afford to give guarantees on the used boxes. "We used to guarantee them for 90 days when we could get \$125 for them, but not at the lower price," he said.

However, Agnew added that in actual practice, he and Russell stand behind their product and in case a defect of some sort is found within a few days after the sale, they take care of it.

The pair point out to customers that they provide authorized service on the units and can obtain parts built for them. They emphasize that they have had long experience in handling these units and Russell has had factory training in servicing them.

Both Agnew and Russell believe in doing a good overhaul job in order to obtain customer satisfaction. They assert that they are building their future on repeat business from satisfied customers—a policy that is already paying dividends.

Agnew related how one customer had traded her Grunow in on a

Frigidaire and was so pleased that she talked her sister, who also owned a Grunow, into doing the same thing. This sale led to another, a friend who decided to dispose of her old unit herself but came to Agnew-Russell to purchase her new refrigerator, he explained.

Agnew finds that there is a fairly good market for used refrigerators in Cleveland, particularly among home owners who are fitting out small apartments to rent.

The fly in the ointment here though is that many of these prospects follow up all the advertisements for used refrigerators they find in the local papers and try to beat the dealer down to \$50 or \$60 for a unit. They haven't had any luck with Agnew-Russell.

Agnew readily admits that the company's volume on used refrigerators is not large. But, as Russell says, "In this business, you have to be either big or small. There is no medium ground. And we prefer to remain small."

CLASSIFIED ADVERTISING

The pair sell about one used refrigerator per week and usually have three or four on the floor. When they have used units in stock, they advertise consistently in the classified section of a metropolitan daily with good results.

Agnew asserted that the firm does no advertising at all on its Frigidaire refrigerators. All advertising is concentrated on Grunow service. This is done through two community newspapers that cover Cleveland's west side.

Their advertisements appear every week. Consistency is what counts when advertising service, they contend. Many times they have found that Grunow owners have cut out their advertisements and pasted it on their refrigerators for ready reference.

Though Grunows represent a large proportion of their used refrigerator volume, other makes are also accepted as trade-ins from customers who come in to purchase a new refrigerator. Given the same overhaul treatment as the Grunows, these models add a bit of variety to the floor display.

Used boxes are very rarely purchased without the sale of a new unit involved, Agnew said. Though the company sometimes gets offers to sell from refrigerator owners, it very seldom buys, he further asserted.

Frigidaire is the only new refrigerator that the firm sells. It also

handles other Frigidaire appliances, Maytag washers, radios, and small appliances.

Agnew-Russell has been operating for about five years. It started out during the war as a strictly service venture and gradually expanded into selling. It is still expanding.

Russell chuckled as he noted that while nearby competitors were crying about a slump in business a short time ago, Agnew-Russell was enjoying the best month it has had yet.

That, he believes, is good evidence that, for the long pull, a policy of giving good service to the customer will bring that customer back to your store for additional purchases.

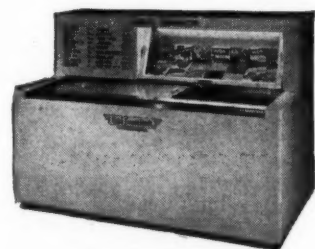
American Sales To Distribute Admiral

CHICAGO—Appointment of American Sales & Distributors, Inc., as exclusive distributor of Admiral electric ranges, refrigerators, radios, phonographs, and eventually television sets for the southeastern areas of Columbus and Dayton, is announced by W. C. Johnson, general sales manager of Admiral Corp.

American Sales & Distributors, Inc., was established in Zanesville, Ohio, in 1906 by A. Goldenberg, who is still president of the firm. A headquarters was set up in Columbus in 1929, and a Dayton branch was added in 1932. Household appliances, radios, floor coverings, sinks, and cabinets are handled by both branches.

Top officials of the organization are T. E. Goldenberg, executive vice president; E. C. Brauning, vice president and sales manager; E. P. Mercer, treasurer of the company; and K. G. Brecht is manager of the Dayton branch.

\$679⁰⁰
LIST PRICE



THE GOODSSELL FROZEN FOOD DISPLAYER

21 CU. FT.—700 PACKAGES

WRITE FOR DEALER PRICES

GOODSELL CORP.

1820 FLUSHING AVE. BROOKLYN 6, N. Y.



LOOK FOR THIS NAMEPLATE ON QUALITY REFRIGERATION EQUIPMENT

Here is GENERAL'S perfected model CSC7 . . . a self-contained dry beverage cooler. Long life, lustrous stainless steel doors and tracks set off the handsome, black crackle finish durably baked on a sturdy, steel frame. Two blowers, each operating double fans, force air against heavy duty multi-finned coils. Model CSC7 is available for immediate delivery at a moderate price.



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READY FOR PLUG-IN OPERATION

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Refrigerants

"EXTRA DRY ESOTOO"

Liquid Sulfur Dioxide

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consistently pure consistently sure

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SERVING INDUSTRY FOR 50 YEARS



3 Condenser Types Tested In New York Store Installation

NEW YORK CITY—The Grand Union Co.'s newest supermarket, opened recently at 4776 Broadway in New York City, illustrates the increased importance of refrigeration in food merchandising, with complete self-service in the meat department. This newest outlet, which Grand Union—a chain of some 350 stores—claims is the biggest supermarket on Manhattan Island, is a one-story affair with no basement; the refrigeration lines are laid in concrete trenches beneath the floor.

The refrigeration equipment includes 80 ft. of self-service Hill meateria cases, powered by two 1½-hp., one 2-hp., and one ¾-hp. units, which hold temperatures of 30° to 32° F.; 30 ft. of Hussmann two-decker dairy cases, powered separately by 2-hp. and 3-hp. machines to avoid spoilage in the event of a breakdown of either; three Hussmann self-contained frozen food cases; two Hussmann dairy and produce coolers, powered by two 1-hp. units; and 30 ft. of produce cases powered by a 3-hp. unit.

A time clock shuts down the operation of the refrigeration in the meateria cases for 2½ hours each day from 3 a.m. to 5:30 a.m. to permit the system to defrost.

During the cut-off period, the temperature rises to 36° F., but by 8 a.m., when the store opens, it is down again to 30°-32° F.

The meat cutting and wrapping area, which is separated from the display and customer areas, includes almost 700 sq. ft. of floor space and its temperature is controlled by the refrigeration equipment. The temperature of the meat-cutting room is maintained at 50° to 55° F.

The 11 condensing units are combination air and water units. As William Lonergan, the engineer in charge of Grand Union's refrigeration and air conditioning equipment, explains it, the purpose here was to cut water consumption.

If ambient temperatures should climb beyond 85° F., because, for example, of blockage of air circulation by merchandise, the water valve would automatically cut in and maintain pressure. The object of cutting water consumption is, of course, to keep down operational costs. (Furthermore, New York City authorities, like those in many other American cities, worry periodically about the prospect of water scarcity.)

Different types of water-cooled condensers have been installed, and by comparing them, Lonergan hopes to discover which of the three may be most suitable for his purposes.

Lonergan intends soon to conduct tests of the equipment in collaboration with the manufacturers to determine the amounts and costs of water and electricity consumption under different conditions of temperature, pressure, etc.

Surprisingly, he says, there is too little such information available at present; he hopes that the data obtained as a result of these tests will aid him in his choice and design of equipment in the future.

The installations were made by Engineering & Refrigeration Co. of Jersey City, N. J.



The New McCary Signal Light Prevents Refrigeration Losses

Any temperature variations above normal in any type of refrigerator are immediately signalled with a bright red light by this fool-proof, inexpensive instrument. Prompt warning prevents spoilage of refrigerated products. Easily installed anywhere, operates between -10° and +60°. Write for free McCary Temperature Signal Light literature. Some distributorships still open.

MCCARY MANUFACTURING CO.
2823 Mobile Street El Paso, Texas

Hits Kaiser-Frazer Deal

Gray Iron Foundries Say Supply Will Be Cut If Republic Blast Furnace Is Leased

CLEVELAND—Dire consequences for the foundry industry are predicted by Raymond L. Collier, executive vice president of the Gray Iron Founders Society, if the Federal government upholds the War Assets Administration's leasing of a local blast furnace now operated by Republic Steel Corp. to Kaiser-Frazer Corp.

"Unless the Kaiser-Frazer lease is cancelled, the foundry industry will begin to feel the loss of upward of 250,000 tons of pig iron on Sept. 1," Collier asserted. "That represents more than 5% of all the foundry grades of pig iron produced in this country."

He added, "The Kaiser-Frazer lease gives the company a free hand to dispose of the pig iron from this furnace in any way it sees fit. But if Kaiser-Frazer makes only basic iron,

it could not serve the foundry customers of Republic even if it were disposed to do so."

He saw the effects of the government's action in granting the lease as challenging the existence of 400 gray iron, steel, and malleable foundries in 19 states and possibly causing the idleness of upwards of 1,000,000 workers.

"The move," he said, "cannot avoid putting scores of foundries out of business altogether and cause the others to drastically curtail their output."

"The closing of as many as 100 gray iron foundries, some of them not so small, would mean the permanent lay-off of 10,000 to 15,000 foundry workers. This in turn, could mean the closing down of hundreds of manufacturing plants dependent on foundry products."

Refrigerating Cellophane Wrapping Paper Helps Solve Problem In Pre-Packaging Meat

DENVER—By refrigerating the cellophane wrapping paper used for pre-packaging self-service meats, a supermarket operator here claims to have solved some meat discoloration problems and improved wrapping procedures.

The self-serve meat department of Miller's Groceria here, which has used five Hussmann open cases since June to give a 60% increase in sales, had been troubled by red meat's frequently discoloring when in contact with the transparent wrapping, according to George Berman, manager.

Berman first learned that it was necessary to use two types of cellophane for wrapping. One was Dupont's LSAT, for luncheon meats, white meats, and drier varieties, and the other MSAT for juicy red meats or wet meats of any kind.

Frequently, however, five girls who handle the wrapping would become

mixed up and use the wrong kind. Even the right variety would show discoloration if the meat did not sell within three hours or so.

Checking with the packaging materials manufacturer, Berman found that the red meat cellophane had a considerable moisture content, likely to dry out and cause stickiness. Immediately he hit upon the idea of refrigerating the wrapping material, cut into sheets, in the walk-in refrigerator in which pre-cut meats are kept.

Here, at 25°, all of the MSAT paper is kept, and brought out only when the schedule calls for steaks, roasts, chops, and other cuts to be packaged.

Properly chilled, Berman has found, the wrapping material does not stick to other sheets, will retain its moisture content, and will not cause discoloration for long periods on display in the Hussmann cases.

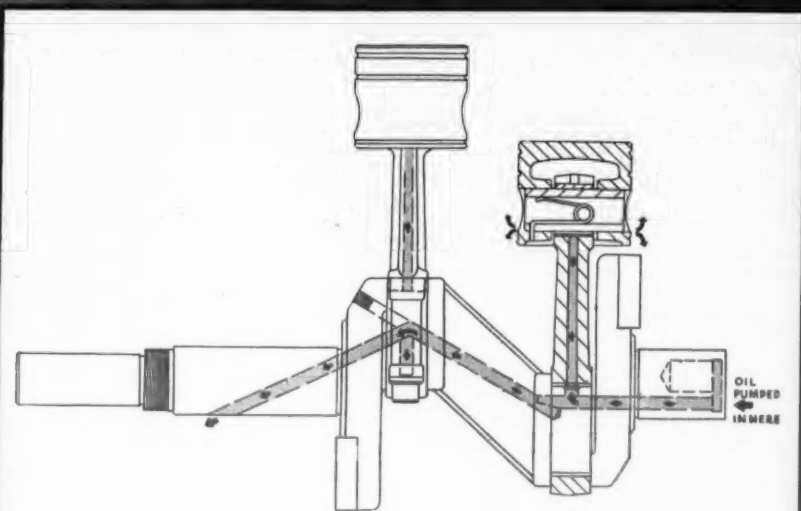
Freezing Facts

by Super

Pumping pays off



It's a far cry from the old-fashioned bucket brigade to modern fire fighting equipment. Nowadays, high-pressure pumps deliver as much as 3000 gallons of water per minute, at pressures up to 250 pounds per square inch, forcing water as high as 500 feet.

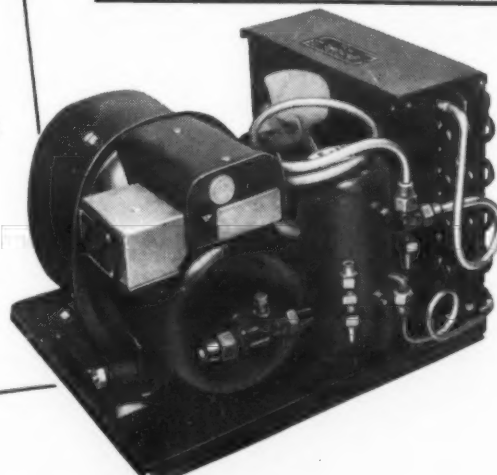


There's a big difference, too, between ordinary "splash" lubrication and the unique "forced-feed" lubrication system used in Servel condensing units. Here oil is pumped through specially drilled channels to wrist pins, pistons, cylinder walls, bearings, and other friction points, keeping them constantly covered by a protective film of oil.

Servel's new "Supermetic" condensing units serve dealers and fixture manufacturers in every vital field:

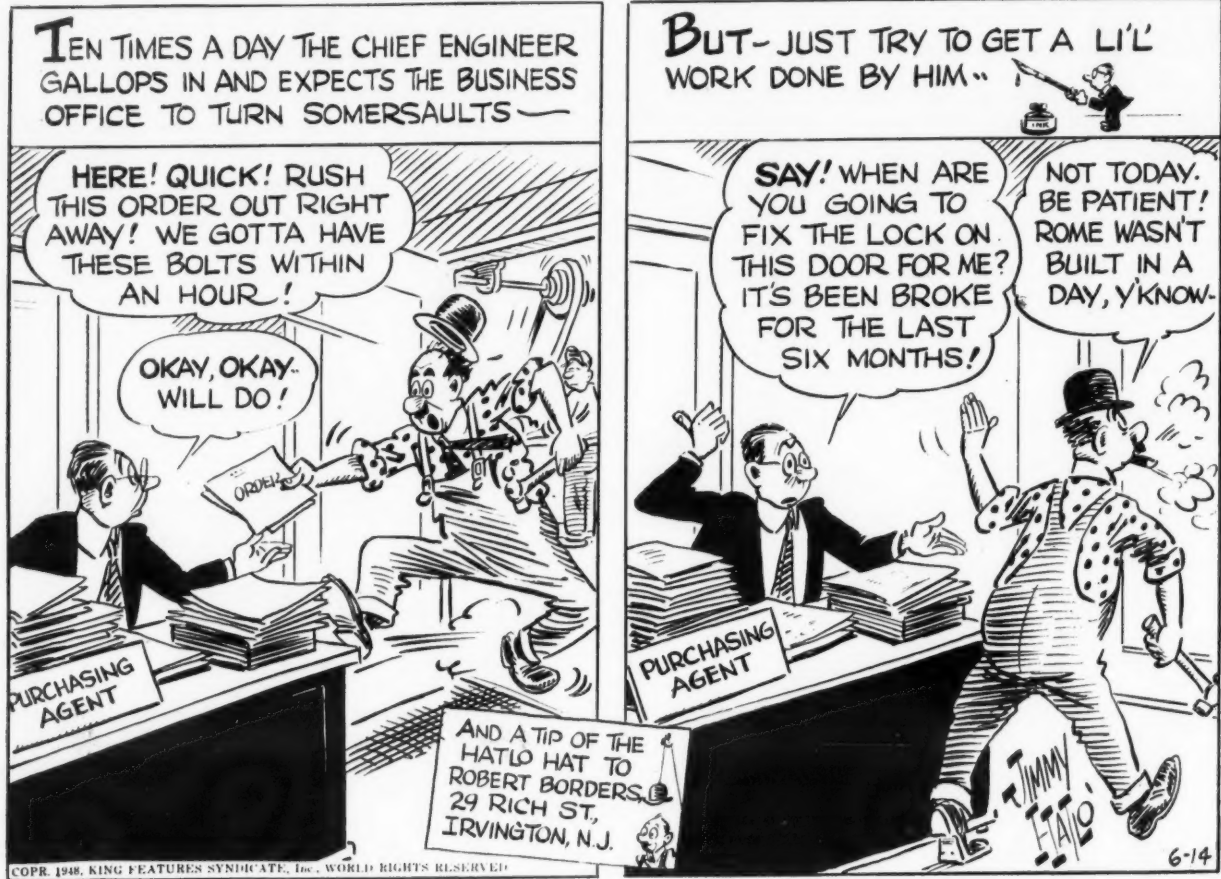
- | | | |
|-------------------|---------------------------|-----------------------|
| 1. Store Fixtures | 4. Beverage Coolers | 7. Farm Freezers |
| 2. Milk Coolers | 5. Vending Machines | 8. Water Coolers |
| 3. Home Lockers | 6. Room Coolers | 9. Industrial Cooling |
| | 10. Vehicle Refrigeration | |

Servel
SUPERMETIC



Forced-feed lubrication is only one of many modern Servel features that assure you of years of low-cost, trouble-free service. Servel condensing units, both hermetically sealed and belt-driven, incorporate this lubrication feature in all sizes from ¼ HP through 3 HP for every refrigeration need. For further details, send now for free descriptive folder. Address: Servel, Inc., Division ER, 1809 Kentucky Avenue, Evansville 20, Indiana.

They'll Do It Every Time By Jimmy Hatlo



Do You Have 'One Foot In the Door'?

Artkraft

Artkraft*

ANNOUNCES THE

BEV-COOL COMPANION PIECE TO THE BEV-FOOD

A BOTTLE COOLER
THAT CAN BE OPERATED WET OR DRY

- EFFICIENT • ECONOMICAL
- STURDY • SIMPLE TO SERVICE

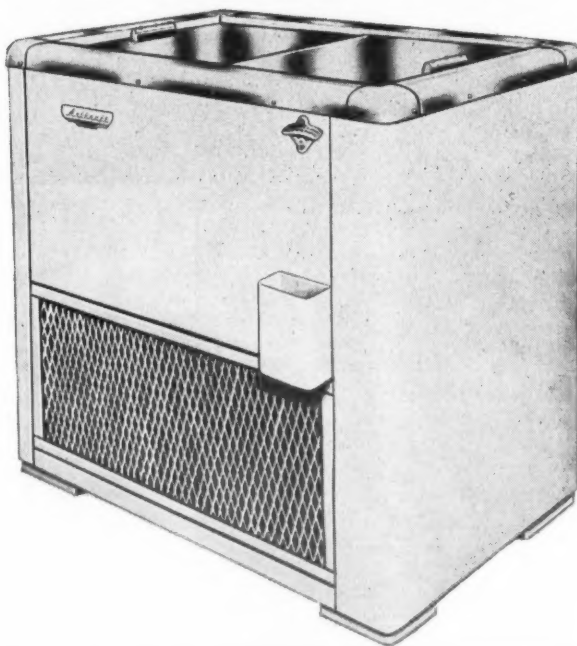
Sold under factory warranty.

Test boxes operated in our laboratory at 90° ambient required only 21% running time idle and 49% running time loaded to maintain operating temperatures. Cold control at midsetting showed 33° water temperature when operated as a wet cooler and 38° air temperature when operated dry.

Operating costs computed on the basis of our experience with test boxes operating for 16 hours per day under load at 2¢ per k.w. Indicated probable operating expense of \$1.00 per month or less.

SPECIFICATIONS:

CAPACITY	5 cases bottles standing or 10 cases of same corded.
SIZE	36" x 42" x 27".
FRAME	All welded steel construction.
CABINET	20 ga. C.R. steel welded seams bonderized for rust proofing.
FINISH	Hi-Baked Dulux.
COLOR	White or Silver Blue (choice of color on quantity orders).
INSULATION	3" Spun Glass-Sealed Cavity.
TANK	Pure Copper Sheet with coils attached to sides and bottom to assure fast conductivity of heat units.
TOP	18-B Stainless Steel.
LIDS	Stainless Steel, Two Slide—Overlapping.
REFRIGERANT	Freon 12.
CONDENSING UNIT	Fan Cooled Hermetic 1/2 H.P. 115 V, 60 Cycle, Permanently Oiled.
SHIPPING WEIGHT	340 lbs.



THIS COUPON FOR YOUR CONVENIENCE

Artkraft* MANUFACTURING CORPORATION
200 Kibby Street Lima, Ohio, U.S.A.

- ☐ Please send the name of the BEV-COOL distributor in this territory.
- ☐ Please send details of distributor's franchise.

NAME.....
FIRM.....
STREET.....
CITY.....

Artkraft*

MANUFACTURING CORPORATION

200 Kibby Street Lima, Ohio, U.S.A.

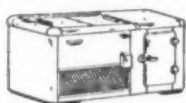
MANUFACTURERS OF THE FAMOUS Artkraft* BEV-LINE



LOW BOY



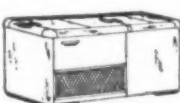
BEV-COOL



BEV-FOOD



BEV-ETTE



BEV-GIANT



QUALITY PRODUCTS FOR OVER A QUARTER CENTURY

- Manufacturers of the Artkraft Bev-Food Beverage Cooler and Food Refrigerator, Artkraft Signs for National Advertisers, Artkraft Low Boy Table Top Refrigerator, Bev-Giant Cooler, Bev-Ette Office Beverage Cooler, Bev-Cool Bottle Coolers for Dr. Pepper, Double Cola, Whistle, Vess Cola, O-Sa Grape, B-1, Red Rock Cola.

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VOLUME 55, No. 1, SERIAL No. 1,016, SEPTEMBER 6, 1948

Would You Let a Total Stranger Spend Your Money?

ALL our lives, we Americans have spent our own money for things we wanted. Most of us have bought homes and automobiles and electrical appliances. All of us have dressed well and eaten heartily. We have gone to the movies and the ball parks regularly, fished and hunted when we felt like it, gambled a little on the horses or at bridge and poker, and relaxed often in cocktail lounges and bars.

We've enjoyed pleasurable vacations, we've indulged whims—and we've saved money, too! A great many Americans have saved enough to invest in the expansion of the nation's business. In consequence, some of them bask in Florida's sunshine during winter months, or retire in California.

Under the American system, every man can buy the kind of happiness he desires *with his own money*. Nobody can tell him that he mustn't smoke or drink, or that his daughter shouldn't have singing lessons if she seems to have a good voice. Under a collectivist state, however, freedom of choice is obliterated. Not only does the party leader stipulate your earnings, but he insists that you can spend them only on those products or pleasures which he approves. What an unpleasant, unsatisfactory way of life!

Government tyrannies confiscate the major share of each worker's paycheck, and spend the proceeds for the higher glory of the dictator and his minions. Tyrannical governments (the Marxian, feudal type) provide the wage-earner with a way-of-life which he may not like or enjoy. And there's nothing he can do about it. Incidentally, the rulers of these all-powerful governments always enjoy the luxuries of Kings.

They keep themselves in office—and in Cadillacs and mink coats—by raising taxes higher, and by borrowing more and more. Thus they reduce the standard of living for everyone who is not one of the "chosen few" new elite. What's more, the higher they raise the tax rate, and the more they plunge a nation into debt, the more they enslave their poor followers.

Few socialistic, paternalistic schemes could be launched if the easy-money sea of public debt weren't lapping at governmental docks. If such schemes were presented to voters on a pay-as-you-go basis, the voters would rebel.

That's why the add-to-the-public-debt system of extending government control is so insidious. "We owe it to ourselves," the floosie economists say. What they mean is: Our children and grandchildren must pay through the nose for our inconsiderate extravagances. We cannot bequeath the grandest birthright of all—the right to spend your own money—unless we compel our government to live within *our* means.

Nearly 130 years ago, Supreme Court Chief Justice John Marshall declared: "The power to tax is the power to destroy." None of John Marshall's wise decisions and cogent observations were more monumental than this one. It distills the essence of true democracy and representative government.

Discriminatory taxes—levied to alter the political structure or for "social" purposes—endanger every insurance policy, savings account, home, and job in the country. They lead either to inflation or deflation (both of which hurt "the little fellow").

Much of America's greatness springs from our forefathers' insistence that the "little desires" of average citizens be allowed to bud and bear fruit. Inconsequential and trivial as some of these "little desires" are (such as bronx-cheering "the boss," taking a day off to go fishing or see a ball game, buying a loud necktie or fur coat, dropping a week's pay in a gambling joint, or getting drunk on New Year's) we cherish them. And the ability to satisfy them is what gives our American Way its unusual bounce and wondrousness.

In America, most people get what they want. Elsewhere, most people don't want what they get. A Marxist state resembles its dictator; but a free country is a magnification and a glorification of its Average Citizen.

Revisions Made In Detroit Code

As was reported in last week's NEWS, the City of Detroit has adopted a new code governing refrigeration and air conditioning installations. Because of the widespread current interest in municipal codes, the NEWS is herewith presenting the important code changes and additions. Both the old sections and the revised sections are published together so they can be compared.

NEW

Section 3012.8. Hard copper tubing used for refrigerant piping erected on the premises shall conform to A.S.T.M. designation B88-41, Grades K or L for dimensions, and shall be absolutely free from scale and dirt.

NEW

Section 3012.9. Soft annealed copper tubing used for refrigerant piping erected on the premises shall not be used in sizes larger than 1/2 in. nominal size and shall conform to A.S.T.M. designation B68-47. Wall thicknesses shall be in accordance with the following table and all packages of such tubing shall be marked, indicating the actual outside diameter and the wall thickness of the enclosed tubing.

Actual Outside Diameter Inches	Wall Thickness Inches	Actual Outside Diameter Inches	Wall Thickness Inches
1/8"	.030	3/8"	.032
3/16"	.030	1/2"	.032
1/4"	.030	5/8"	.035
5/16"	.032	3/4"	.035

NEW

[Under Section 3012.17]

Stop valves shall be installed on all systems containing more than twenty (20) pounds but less than one hundred (100) pounds of refrigerant. . . .

NEW

Section 3013. Every part of a refrigerating system, excepting pressure gauges and control mechanism, shall be designed, constructed, and assembled to withstand the test pressures specified in Table No. (3).

Section 3013.1. All refrigerant-containing vessels shall be constructed in accordance with the requirements of Section 8 (Unfired Pressure Vessels) of the A.S.M.E. Boiler Construction Code of 1946 with 1947 addenda and shall bear the A.S.M.E. symbol as required in that Section, except as provided for in Section 3013.2.

Section 3013.2. Equipment and pressure vessels currently listed by the Underwriters' Laboratories, Inc., will be accepted as meeting the requirements of Section 3013, provided such pressure vessels are not more than six in. (6") in inside diameter or their volume does not exceed five (5) cu. ft. when designed for pressures not in excess of 250 p.s.i.

Completeness of the Detroit code has always attracted considerable interest, and copies of the code have been sent all over the country. For this reason, the NEWS is publishing only the sections that are changed.

Note that the revised sections carry new numbers. This is because the refrigeration code has been incorporated as part of the city's general building code.

OLD

12.20: Hard copper tubing used for refrigerant piping erected on the premises shall conform to A.S.T.M. designation B-88-33, Class "K" or "J."

OLD

12.22: Soft annealed copper tubing used for refrigerant piping erected on the premises shall conform for quality to A.S.T.M. specification B-88-33 with revisions, and:

(a) In sizes not greater than 1/2 in. outside diameter shall have a recognized standard wall thickness of .035 in. or greater.

(b) In sizes larger than 1/2 in. outside diameter only 1/2 in. or 3/4 in. nominal sizes, class "K" or "L" shall be used.

OLD

[Under Section 12:30]

Stop valves shall be installed on all systems containing more than twenty (20) pounds but less than one hundred-fifty (150) pounds of refrigerant. . . .

OLD

13.10: Every part of a refrigerating system, excepting pressure gauges and control mechanism, shall be designed, constructed, and assembled to withstand the test pressures specified in Table No. (3).

13.11: Equipment listed by the Underwriters' Laboratories, Inc., will be accepted as meeting the requirements of paragraph 13.10.

13.12: Refrigerant containing vessels which are not listed by Underwriters' Laboratories, Inc., directly or as a part of a complete unit, shall be designed and constructed in accordance with the rules of Section 8 (Unfired Pressure Vessel Section) of the A.S.M.E. Boiler Construction Code, and shall bear the A.S.M.E. symbol.

NEW

Section 3013.11. The minimum discharge capacity under fire conditions of rupture members and discharge piping shall be as given in Table 2.

NEW

Section 3013.12. The minimum required aggregate rated discharge capacity of pressure relief devices for a refrigerant-containing vessel. . . .

NEW

TABLE 2

Discharge capacity of rupture members and discharge piping in pounds of air per minute under fire conditions.

NEW

Section 3013.14. All pressure relief valves or devices for refrigerant-containing vessels shall be set to operate at not to exceed the maximum allowable working pressure stamped on the vessel and not more than the test pressure shown in Table 3.

NEW SECTIONS

The following two sections have been added to the code:

Section 3001.11. The City of Detroit shall permit refrigeration installation contractors legally licensed by other municipalities of the State of Michigan to engage in the business of installing or contracting to install, alter, or service refrigerating equipment covered by this ordinance, parts or accessories thereof, or appurtenances thereto, within the corporate limits of the City of Detroit upon registration with the Department and the payment of a nominal registration fee; provided that such municipalities reciprocate in recognizing refrigeration installation contractors duly licensed under the provisions of this ordinance by granting them the same privilege and charging the same uniform license and registration fees. Provided further, that the licensing ordinance, examinations, and examination procedures of such municipalities are substantially similar to the requirements set forth in this ordinance. No refrigeration installation contractor's license shall be recognized for the purpose of registration by the City of Detroit which has failed to approve by affirmative action of its legislative body, the reciprocal licensing provisions contained in this ordinance. The right of any municipality to participate in the reciprocating section of this ordinance shall be determined by the Boards of Examiners of the reciprocating municipalities, based upon qualifications outlined in this ordinance.

Section 3013.7. In institutional and public assembly occupancies the return line from air conditioning cooling coils located downstream from and in close proximity to a heating coil or located up-stream within eighteen in. (18") of a heating coil shall be fitted with a relief valve set not to exceed the maximum allowable test pressure for the return line and discharging to the outside of the building.

OLD

13.32: The minimum discharge capacity of rupture members and discharge piping shall be as given in Table 2.

OLD

13.33: The minimum required aggregate discharge capacity of pressure relief devices for a refrigerant containing vessel. . . .

OLD

TABLE 2

Discharge Capacity of Rupture Members and Discharge Piping in Pounds of Air Per Minute.

OLD

13.35: All pressure relief valves for refrigerant containing vessels shall be set to function at a pressure not to exceed 25% above the Design Working Pressure of the vessel and not more than the test pressure shown in Table 3. . . .

Alco Booklet Discusses Suction Line Regulators

ST. LOUIS—"Suction Line Regulators" is the title of a new 20-page bulletin just issued by the Alco Valve Co. here.

Known as Bulletin 183, Alco terms it one of the most complete works on the subject of suction line control ever published in the refrigeration industry.

While primarily a catalog of Alco's line of evaporator pressure regulators, it contains complete sections on the proper selection, application, installation, adjustment, and servicing of these devices. It includes descriptions of various remote pilots, both pressure and temperature types, some of them new to the industry, and of the regulators adapted to operation from an air control system as with various industrial instruments.

Conditioning Installed In Georgia Church, Store

MACON, Ga. — Conditioned Air, Inc., 325 Fifth Ave. here, has completed installation of York air conditioning equipment in the Belk-Matthews department store and the Mulberry Street Methodist Church, according to Albert W. McKay.

U. S. Pat. 2,219,393
Canada Pat. 394,209
New Zealand
Patent 82,359

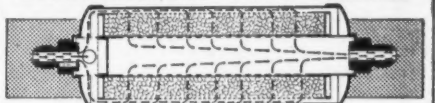
COMMERCIAL DOMESTIC



For standard temperatures or low temperatures "Recold" water defrost ceiling coils are being more widely accepted in every type of installation. "Recold" manufactures equipment to meet every commercial refrigeration need.

REFRIGERATION ENGINEERING, INC.
7250 East Slauson Ave.
Los Angeles 22, Calif.

REMCO HEAVY-DUTY "CROSS-FLO" DRIER-FILTERS AND FILTERS



UNIQUE "CROSS-FLO" DESIGN eliminates roiling, dusting and packing of drying agent, which eliminates pressure drop, clogging, poor refrigerant control performance and expensive call backs—permits installation in liquid line, suction line or between refrigerant control and evaporator.

Ask Your Wholesaler Or Write
REMCO, INC., ZELIENOPLE, PA.

insist on genuine

Marlo

products

MARLO = HEAT TRANSFER
Since 1925

COMPACT



COMPRESSORS

FIT ANY FIXTURE...SAVE INSTALLATION TIME

COMPACTNESS is the keynote of these modern General Electric Compressors . . . now available for use in your own condensing units. The CW line ranges from 1/6 to 2 hp in one, two and four cylinder models.

Combined with low height, these compressors offer forced feed lubrication with only one moving

part . . . counterbalanced crankshaft . . . high efficiency that gives maximum refrigeration per power dollar . . . and other special G-E features.

You'll save installation time with the CW line . . . and you'll have a condensing unit to offer that shares in General Electric's reputation for reliability.

ALSO A FULL LINE OF LARGER COMPRESSORS

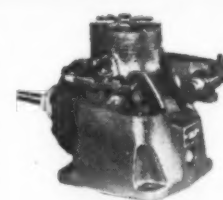
For larger condensing units, G.E. offers compressors ranging from 2 hp to 60 hp. Like the CW line, these big compressors feature thin valve plates, wide opening ring type Swedish steel valves and carefully fitted pistons to give top-notch efficiency.

All compressors are delivered with service valves. Flywheels are included if specified. *General Electric Company, Air Conditioning Department, Section R8709S, Bloomfield, New Jersey.*

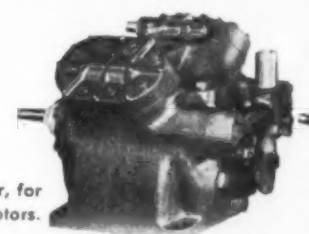
GENERAL ELECTRIC
Better Refrigeration



Type CW-3—Two-Cylinder, for use with 1/2 and 3/4 hp motors. 8-3/16" high.



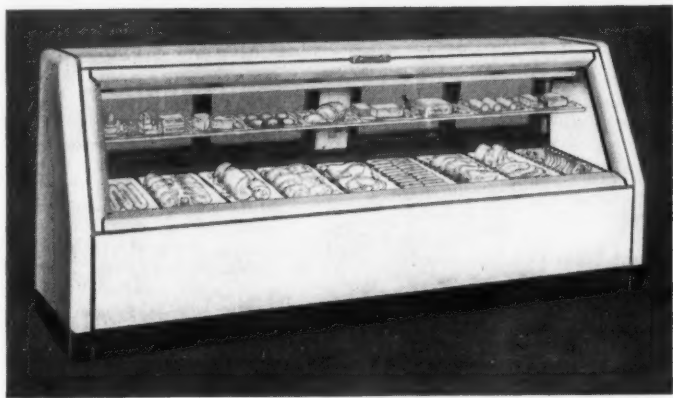
Type CW-2—One-Cylinder, for use with 1/6, 1/3, 1/4, and 1/2 hp motors. 7-5/16" high.



Type CW-4—Four-Cylinder, for use with 1, 1 1/2, and 2 hp motors. 9-11/16" high.

Pinnacle

Double Duty and Delicatessen
DISPLAY CASES



Quality Construction Throughout!

Exterior and interior of display compartment of heavy gauge steel, finished in two-coat, easy to clean, porcelain. Storage compartment lined with stainless steel. Easy (finger-tip) sliding doors. Under-shelf fluorescent lights.

A few exclusive Pinnacle territory franchises are still available. Wire or write immediately for full information.

FREE FOLDERS
of complete line.

Pinnacle
EQUIPMENT CORPORATION
FLEETWOOD, PENNSYLVANIA

Export Dept.: 39 Broadway, New York

Sunroc Adds Distributor Outlets In Six States, D.C.

GLEN RIDDLE, Pa.—Distributors have been appointed in six states and the District of Columbia by the Sunroc Refrigeration Co. here, manufacturer of water coolers.

New distributors and their territories are:

Harry Cooper Supply Co., Springfield, Mo.—northern Oklahoma and southern Missouri; Salina Supply Co., Salina, Kan.—northwestern Kansas; Santa Fe Builders Supply Co., Santa Fe, N. M.—northern New Mexico.

Wm. Bornstein & Sons, Washington, D. C.—D. of C., northern Virginia, southern Maryland; Superior Distributing Co., Pittsburgh—western Pennsylvania; Southern Wholesalers, Inc., Dalton, Ga.—northern Georgia.

New Refrigeration Firm Incorporates In Fort Wayne

FORT WAYNE, Ind.—Merchants Refrigeration Equipment Co., Inc., has filed articles of incorporation with the county recorder. The firm listed capital stock of 1,000 shares of no par value.

It is authorized to handle sales and installation of heating, refrigeration, plumbing, air conditioning, television, and other equipment, domestic and commercial.

The officials are listed as Gerald G. Grosh, president; Robert E. Meyers, vice president; and James R. Hawthorne, 2035 South Lafayette St., resident agent.

It Caught the Passer's Eye



The Buffalo Niagara Electric Corp. of Buffalo used this window display to stimulate interest in home freezers and found that it had a real traffic stopper. Theme of the display was "Security has various meanings... but to the Jones family it means a well stocked larder."

Educational Call Immediately Following Purchase Keeps Customer Happy, Salesman Busy, Earnings High

DENVER—Keeping his salesmen busy in making "educational call" follow-ups on every major appliance sold has proven the most profitable possible source of outside sales for Sam Nides, former General Electric executive who now operates Nides' General Electric Appliance Co. at 2017 East Colfax Ave. here.

Instead of permitting his crew of four outside salesmen to "cool their heels" waiting for prospect leads to come in, or to follow up on store contacts, Nides provides his men with a never-ending stream of "prospect calls" through a clever follow-up system.

Under the plan which has been developed, Nides' General Electric Appliance follows up on the sale of every appliance sold in the store—whether it is a small item such as a toaster, or a 16-cu. ft. home freezer.

Making this possible is a simple system for obtaining the name and address of every customer. Inasmuch as the Nides store carries the complete G-E appliance line, there is a warranty or guarantee on almost everything carried in stock. Therefore, a separate staff of store sales people makes a point of getting the name and address of every purchaser in the store, which is jotted down on a three-part sales ticket in automatic sales check writing machines.

The first copy is the original, the second goes to the customer, and the third, titled "Educational Call" goes on the salesman's peg at the back of the store. Thus, no matter how small an item the customer buys, she becomes automatically the subject for a "follow-up" as soon as her name and address is obtained.

The following morning, the salesman's first duty is to check his

"educational call" peg and to schedule the call accordingly. Arming himself with literature, pamphlets, booklets, etc., concerning the appliances which have been sold the day before, he calls on each housewife in turn, distributes the literature, puts the appliance through its paces, makes any adjustments necessary, etc., and in the course of this, gets a chance to look over the house, and suggest whatever appliances may be needed.

"Also, he picks up the names of friends and relatives who may be in the market for a new refrigerator, laundry equipment, etc.," Nides said. "We see to it that our salesmen get enough 'educational calls' to keep them busy—and because of this it has never been necessary for any man to make a single cold-canvas call."

Sales which the specialty men make themselves out in the field are followed up in the same way. Each day a daily delivery and pickup report sheet is scanned by a girl in the office, who makes out "user cards" which show what appliance is being used and where. If possible, the same salesman who made the original sale makes the follow-up call, and goes through the same process.

"Our customers are always surprised to find that every sale is followed up so rapidly," Nides grinned "and, of course, we have a solid door-opener in the fact that we have already sold at least one appliance to them."

"Our salesmen are chalking up the highest earnings possible—because under this system, they are bound to make many calls on customers already pleased with the firm—and there is no better source of potential sales than that."

**Hop Aboard
THE PROFIT LINE**

Dealers hit the high road for greater sales when they handle the Ultra-Cold line of freezers, refrigerators, and ice cream cabinets. There's a model for every need. Choice territories still open in the U. S. and throughout the world. Write for descriptive literature today.

ULTRA-COLD

ULTRA-COLD INC.
2615 EXPOSITION PLACE
LOS ANGELES 16, CALIF.

Multiplex

Stainless Steel
**BAR
DISPENSER**



- ✓ SPEEDS SERVICE
- ✓ INCREASES PROFITS
- ✓ ELIMINATES BOTTLES

Fresh
Carbonated Drinks
COLA, LEMON, GINGER ALE, SELTZER

WRITE FOR ILLUSTRATED BULLETIN AND PRICES

DEALER & DISTRIBUTOR INQUIRIES INVITED

MULTIPLEX FAUCET COMPANY

4325 DUNCAN AVE., DEPT. ARN-14, ST. LOUIS, MO.

MANUFACTURERS OF SOFT DRINK DISPENSERS OVER 43 YEARS

\$1 Million Reserve for Depreciation at Today's Prices Set by Armstrong

LANCASTER, Pa.—Net earnings of the Armstrong Cork Co. in the first six months of 1948 were \$5,326,776, after taxes and after a reserve of \$1,060,000 for eventual replacement of existing low-cost fixed assets, representing a return of 6.1% on total net sales of \$87,496,711, the largest sales volume for any six months' period in the company's history, reports H. W. Prentiss, Jr., president.

These earnings amount to \$3.46 per share of common stock, compared with \$2.70 in the comparable period of 1947 when profits after taxes were \$4,105,981.

The decision to reserve \$1,060,000 from net profit for the first six months of 1948 was made in order to bring depreciation charges for the period in accord with prevailing replacement costs, Prentiss reported. He stated that this sum was arrived at by applying to the company's assets acquired in previous years an amount for depreciation based on current figures, as calculated from indexes of construction costs over a long period compiled by *Engineering-News Record*.

Segler Changes Its Name

MACON, Ga.—The Segler Refrigeration Co., 1508 Broadway, has changed ownership and henceforth will be known as the Melton Refrigeration Co., with Tom Melton as general manager.

The firm is distributor for McCray refrigerators and U. S. Slicing Machine equipment. George W. Patton, D. T. Segler, and Guy T. Gregory are members of the Melton sales organization.

Johnson Opens New Branch

MILWAUKEE—The Johnson Service Co. here, manufacturer of temperature and air conditioning control systems has announced the opening of a branch office in Charlotte, N. C., its 35th in the country.

E. D. Streng, formerly of Greensboro, N. C., has been given charge of the new branch.

Opening of the Charlotte branch was necessitated by an especially active market for Johnson control systems there, according to company officials.

41-Man Group to Probe Effects of Cement Case

WASHINGTON, D. C.—A number of executives from the refrigeration, appliance, and allied industries have been named to a 41-man committee to study effects of the Supreme Court's decision in the cement basing point case.

The appointments, which were announced by Senator Homer E. Capehart of Indiana, chairman of the Senate Committee on Trade Policies, include:

Donald C. Mitchell, president, Sylva Electric Products, Inc.; Kenneth W. Prentiss, president, Armstrong Cork Co.; E. C. Wampler, president, Carrier Corp.; Roy C. Ingersoll, Ingersoll Steel & Disk Division, Borg-Warner Corp.; and Fred Maytag II, Maytag Co.

Brunner Catalog Gives Condensing Unit Data

UTICA, N. Y.—A catalog containing descriptions and dimensional data on Brunner compressors and condensing units and seven pages of general engineering data applicable to commercial refrigeration installations was issued recently by the Brunner Mfg. Co. here.

The book, called Catalog No. 42, devotes most of its 36 pages to descriptive material on the various models of Brunner air-cooled condensing units, air and water-cooled units, water-cooled units, gasoline engine equipped units, and compressors.

Three pages are filled with dimensional drawings of the units accompanied by tables of dimensions applicable to the various models.

The general engineering data includes general rules for figuring the requirements for loads above and below freezing and information on selecting the proper condensing unit.

There is also a pressure-temperature chart and general installation instructions. Thirteen tables offer heat leakage factors, specific and latent heats of various types of foodstuffs, suggested temperatures to operate coolers and refrigerators, recommended wire sizes, and methods of figuring refrigeration loads for walk-in coolers, grocery, restaurant, and hotel refrigeration, display cases, double-duty cases, concrete milk coolers, dairies, ice cream freezing and hardening coolers, and counter freezers.

Fish-Freezing at Sea Aim of Gov't Project

WASHINGTON, D. C.—To allow commercial fishing vessels to remain at sea for longer periods of time and to save valuable by-products of the fish caught, the commercial fisheries branch of the Federal Fish and Wildlife Service is planning a project to freeze fish at sea for later processing on shore.

Frozen soon after they are caught, the fish will not be defrosted until the boat reaches shore. Then they will be defrosted, fillets will be cut, and the fillets refrozen and packed.

The Service said that if these experiments prove successful in maintaining high quality, it would test and recommend new refrigeration and processing methods.

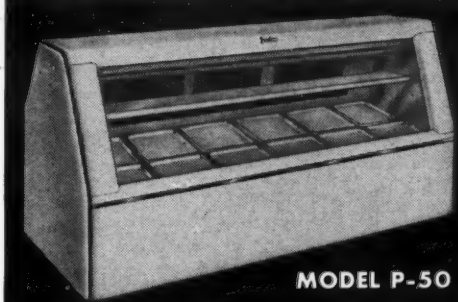
The Service also expects that by providing a year-round supply of frozen fish for filleting, employment and production problems of fish packing plants will be eased.

Special Booklet Tells Wagner Electric Story

ST. LOUIS—"This Is Wagner," a 20-page, 2-color booklet telling the story of Wagner Electric Corp. has recently been published following the company's fifty-seventh and "most successful" year.

The book, a special edition of the company's house organ, "Wagner Circle," features an introduction by P. B. Postlethwaite, president of the firm. The Wagner people, plants, and products are highlighted in the publication.

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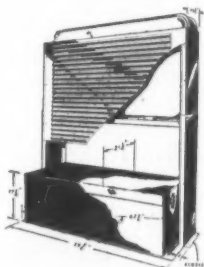
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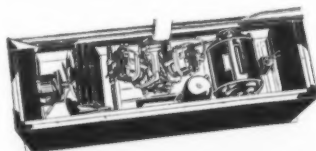
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The New Kold-Hold Package Refrigeration Unit means lower costs . . . added dividends to you. Its simplicity of installation and operation is the highlight of its success wherever high temperature perishables are transported by truck. Check the following features of the New KOLD-HOLD PACKAGE REFRIGERATION UNIT.



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7. Dry and odorless—no bother. Dependability at lower cost.
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*A 200V-60 Cycle Single Phase motor can be supplied on request.

The Kold-Hold Catalog contains information on the entire line of Kold-Hold Refrigeration Products. Write for your free copy today!



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This air is hot air. It traps in the condenser, where it is held at temperatures up to 200° F. or higher. At these temperatures the oxygen of the air is very reactive. It is in contact with small amounts of oil as well as refrigerant, and oxidizes them to compounds known as organic peroxides and acids. These compounds are corrosive and attack metals and form sludges.

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A CANADIAN THANKS HIS FRIENDS IN U. S.

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Toronto, Canada

Editor:

It was not possible for me to read your editorial "Canada's Importance in World Affairs" in the Aug. 16 issue of the NEWS, without expressing my personal appreciation for your complimentary remarks of Canada as part of North America.

The resources and the contrasts of the North American continent have never ceased to be a source of great interest to me. In my travels from Newfoundland, across Canada to Alaska, through the United States, and into Mexico, resources and contrasts are tremendous.

It is my hope that the co-operation which has extended between the Canadian people and the citizens of the United States will continue into the future.

For the past 20 years, my business activities have brought me in contact with many in the United States, and as a result of this, many of them have become friends.

These friends have taught me a lot, as well as many other Canadians, and if we have been able to offer anything in exchange, it has been to our advantage.

This editorial gives me the excuse,

if one were needed, to thank my friends in the United States for all the things I have been able to learn from them.

C. R. DAVIS

SERVICE ENGINEER NEEDS JOB IN DRY CLIMATE

1204 White Horse Pike
Absecon, N. J.

Editor:

Mr. Aronson, of Philadelphia, called at our place and suggested that we write to you about the possibility of positions in refrigeration service in Arizona, Texas, or southern California.

My husband, George Applegate, is a veteran of World War II. He contracted the diseases which were common in the South Pacific. He has been advised by many physicians to leave this climate. The above states have been suggested as a possible relief from his lung and heart condition.

We have a very fine business here and a complete shop. These we will have to dispose of at quite a loss. However, health is more important and we will welcome any suggestion which you can make.

Until such time as we can dispose of our property to a good advantage I have been advised to consider Florida for the winter and early spring. Mr. Aronson gave permission to use his name as a reference.

If you have any specific position

or friend whom you would like to take special care of in the way of a competent service man, refrigeration, air conditioning, and oil burner, you can be assured that you will never be embarrassed for having given George Applegate a recommendation. You will be amazed at the worthwhile references we can produce. He is thoroughly trained for all of the G-E products.

MRS. NELLIE E. APPLEGATE

SHOE POLISH COOLING DATA IS REQUESTED

Embassy of India Chancery
2107 Massachusetts Avenue, N. W.
Washington, D. C.

Editor:

We have been requested by Kunwar P. Kaul, proprietor of "The New York Blacking Co.," Vijaynagar Colony, Agra, (India), to contact you in regard to obtaining a technical book dealing with the refrigeration of shoe polishes and that the same be forwarded to him as early as possible.

It is requested that, if possible, the publication may kindly be sent to him direct and advice on the matter forwarded to this office.

Should you not have any publications on hand dealing with this particular subject, it would be appreciated if you would advise us at the earliest as this information is urgently desired by Mr. Kaul.

A. K. DAR, Third Secretary

Answer: This is a new one on us, but if any reader has the answer and wants to be a "Good Neighbor," send the information on to Mr. Dar or to us and we'll relay it.

TO DISTRIBUTE STORY ON ROOM COOLER SELLING

Fedders-Quigan Corp.
Buffalo, N. Y.

Editor:

We enjoyed your article, "Sell 'Em in the Winter, Have the Right Answers All of the Time" in the Aug. 2 issue of AIR CONDITIONING & REFRIGERATION NEWS.

We thought it was such a downright good editorial, we would appreciate it very much having your permission to reproduce it in a mailing we are planning to send to all of our distributors.

W. H. J. ROWLAND,
Advertising Manager,
Unit Air Conditioner Division

EX G-I WHO SUFFERED FIRE LOSS SEEKS HELP

Griffith Refrigeration & Appliance
Service
P. O. Box 144
Carthage, Miss.

Editor:

I am enclosing my renewal subscription for another year for the NEWS. I also am enclosing a news item that I wish you would publish in the next issue of the NEWS with a note that if anyone wishes to help me out in some small way, that it will be deeply appreciated. (Following is the news story referred to:)

FIRE DESTROYS GRIFFITH SHOP WEDNESDAY

"A fire of undetermined origin destroyed the workshop of the Griffith Refrigeration Service, located near the D. A. Crawford residence in the western part of town, early Wednesday morning. According to Mr. Griffith, owner, approximately \$4,000 damage was done by the blaze.

"Mr. Griffith states that he was awakened at 3 a.m. by an explosion in the shop and discovered that the building was ablaze. The Carthage Fire Department was called but the fire had made such headway that little could be done to save the building or fixtures.

"In addition to refrigerators, a washing machine, spare parts, and equipment were lost in the fire. Mr. Griffith reports that he will continue his service here.

"No insurance was carried on the building."

I am a veteran of World War II with service on Iwo Jima, where we made some refrigerating units out of spare parts from airplanes and "duck" air compressors for inflating tires. I lost everything in the fire that I have been able to build up here in a small country town in the past two years.

I am the only refrigeration man within 25 miles, and I would like to re-build as soon as possible, so someone else won't move in on me in the meantime.

If you will do this small favor for me, I know that some of the boys will "kick-in" just a little, to help out someone who can sure use a little help to get back on his feet.

LYLE D. GRIFFITH (Owner)

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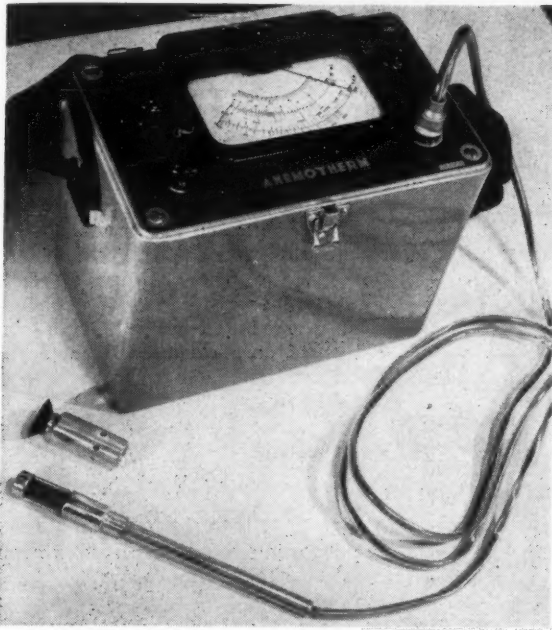
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THE HEAT-X-CHANGER CO., INC.
415 Lexington Avenue, New York 17, N.Y. Brewster, N.Y.

Anemotherm Resistance Element Measures Air

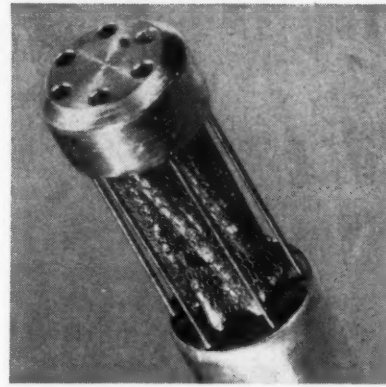


Called the "Anemotherm Air Meter," this portable air testing instrument has been introduced by Anemostat Corp. Shown here with the cover removed, the instrument is claimed to permit direct readings of air temperature, velocity, and static pressure. "Probe" at lower left is shown with cap removed. Latter is used in static pressure work.

Static pressure readings are provided for by the unique design of the probe. An orifice in the protection cap allows air under pressure to enter, pass over the resistance wires, then leave via exit vents.

By inserting only the tip of the probe cap through a small opening in a duct, the static air pressure in the duct is converted into air velocity in the probe. Static air pressure is then read directly on the scale of the instrument which has been calibrated for the purpose.

Intended for both field and laboratory service, the new air meter is readily portable. It weighs only 10 lbs., complete with batteries which are available everywhere. Because of its features, it makes it possible to obtain readings at points ordinarily



Close-up of the probe used with the Anemotherm Air Meter shows the heater and resistance wires which are hooked up electrically with the case to give direct readings.

considered inaccessible, Anemostat claims.

A special voltage regulating circuit keeps readings accurate automatically, regardless of battery condition. Pointer on instrument is dampened properly so as to prevent oscillation and thus give average readings. Area exposed to radiant exchange with heated or cooled surfaces is at a minimum—thus errors due to this factor are said to be negligible.

The temperature scale is spread over the dial in multiple bands and this allows temperature divisions of $\frac{1}{2}^{\circ}$ F. over a scale of 30° to 155° F. Because of the battery power supply, there is no problem of line voltage fluctuations with which to contend, the company says.

Portable Air Meter Gives Direct Readings Of Velocity, Temperature, Static Pressure

NEW YORK CITY—A self-contained, lightweight, portable, direct-reading instrument for measuring air velocity, air temperature, and static pressure, has been developed by Anemostat Corp. engineers after several years of research, the company announces.

The new instrument, called the Anemotherm Air Meter, contains a heated nickel resistance which, when exposed to the air stream, is cooled and consequently changes its electrical characteristics. Thus, air velocity is measured indirectly by its effect on the heat loss of a given surface, it is explained.

Measurement problems of the air conditioning engineers are greatly simplified by the new three-way instrument, it is claimed by the company. Need for the thermometers, draft gauges with pilot tubes, and separate airflow devices is said to be eliminated.

Enclosed in the small case are the facilities for checking air velocities from 10 f.p.m. to 5,000 f.p.m., in increments as small as 10 f.p.m., a wider range than ever available before. The measurement is non-directional, thus giving an average reading for turbulent air.

The same instrument provides rapid response measurements for temperatures from 30° to 155° F. Accuracy of readings is about one-fourth of a degree. In addition, Anemotherm provides for measuring static pressure, negative or positive, directly in inches water gauge. The range is from 0 to 10 in. positive with an accuracy of $\frac{1}{100}$ in. at the lower end of the scale.

Importance of instantaneous readings, without timing, calculations, or reference to charts, is an advantage that will add up to savings in time,

money, and greater convenience in all applications, points out Anemostat Corp.

One very important feature of the new instrument is its ability to measure air velocity accurately regardless of direction of air flow. This combines with a dampening effect built into the instrument to obtain a non-oscillating pointer and gives in turbulent air the average velocity equivalent to straight line flow.

Neck velocities of air diffusers can be obtained without fear of influence from the static pressures usually found in heating, ventilating, and air conditioning installations.

Essentially, the new instrument consists of two units—the probe, and the case which contains the indicator, batteries, voltage regulating elements, and switches. The probe contains two pairs of fine alloy wires, in thermal contact but electrically insulated from each other. One wire functions as a heater. The two wires form the arm of a Wheatstone bridge circuit.

When air passes over the probe, it cools the heated wire, thus changing its resistance. Because of this, the electrical balance of the bridge circuit is altered—this causes a deflection of the instrument pointer.

Temperature measurements are made by merely disconnecting the heater wire. Under these circumstances, the unheated wire acts as a temperature-sensitive resistance in the bridge circuit. The dial is calibrated directly in degrees F. A switching arrangement permits connecting different resistors into the circuit and this provides the various overlapping temperature scales needed for use in air conditioning work.

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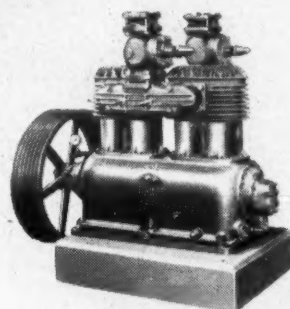
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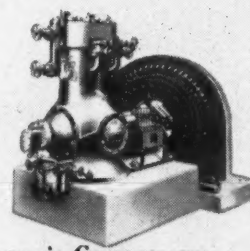
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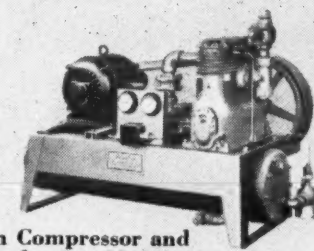
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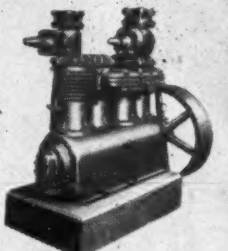
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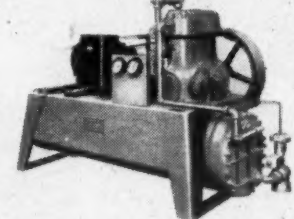
Ammonia Compressors
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from 2 to 125 h.p. capacity



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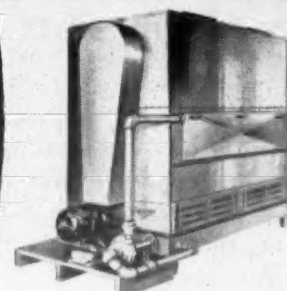
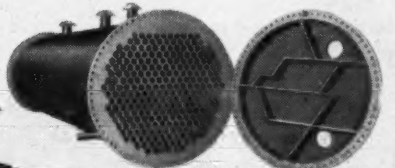


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capacity



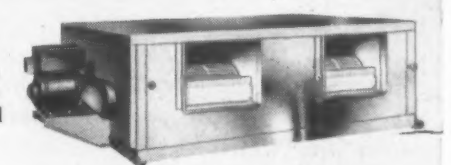
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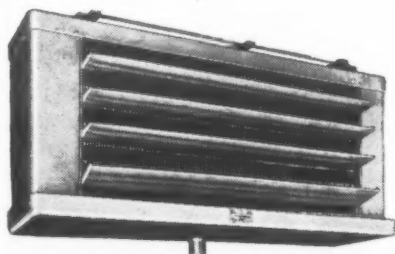
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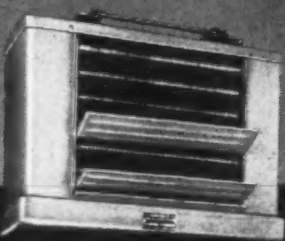
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THE **NAT** CORPORATION
2710 McGee Trafficway Kansas City 8, Mo.



by James J. LaSalvia

Selecting Direct-Expansion Coils, Expansion Valves, Compressors

Direct expansion evaporators (cooling coils) are made from one to 12 rows deep by various manufacturers. Some make them one to six rows deep; some from two to eight rows deep; while others make them from four to 12 rows deep. The reason for this difference is the size and kind of tubing, and the design which these various manufacturers use.

It should be understood that a four-row coil of one manufacturer may or may not do as much as a four-row coil of another manufacturer, and likewise with the other sizes. So it is very important to check each manufacturer's coil to see that it will accomplish the load required.

These coils should be selected to maintain the highest operating efficiency in heat transfer, and to be in balance with the compressor, during the whole air conditioning season.

According to general practice in comfort cooling, it has been found

that no coils should be used having less than four rows deep when these coils are the only coils in the system.

Coil temperatures should be kept between 35° F. and 52° F., preferably between 40° F. and 49° F.

Velocities of the air through the coils should be kept between 400 and 600 f.p.m.

As a guide towards what coil temperatures and velocities should be used, the following table should be consulted. These factors are based upon the "ST" ratio as figured in the heat gain.

EXAMPLE NO. 1

Calculate the size of the evaporators, compressor, and expansion valves to extract both sensible and latent heats for the department store system as shown in the section "Cooling Load."

Information on cooling load is taken from the heat gain calculations, Chart 1 of that section.

According to the heat gain, the "ST" ratio is .79, and according to Table 1, the evaporator temperature should be 45° to 49° F., and the air velocity through the evaporator should be 500 to 600 f.p.m.

Let us assume in this case the condensing water temperature is 80° F.

STEP NO. 1

Determine ratio of total air, recirculated air, and outside air.

From heat gain:
Total air = 8,600 c.f.m. This is taken as 100%.
Outside air = 1,700 c.f.m.
1,700 c.f.m. = 19.8% of outside air.

The outside air in this case is taken as the outside condition taken in the heat gain. This case is 95° F. d.b. and 75° F. w.b. temperatures.

The recirculated air is total air minus outside air, or,
8,600 c.f.m. — 1,700 c.f.m. = 6,900 c.f.m. recirculated air.

6,900 c.f.m. = 80.2% of recirculated air.

(F) B.t.u./hour from heat gain x .925

Room temp. d.b. — (design) Total c.f.m. = d.b. temp.

Room grains/lb. — (design) Total c.f.m. = grains/lb.

Refer grains/lb. to psychrometric chart to find d.p. temperature.

Refer d.b. and d.p. temperatures to psychrometric chart to find w.b. temperature.

188,504 B.t.u./hour x .925 = 59.8° F. d.b. temperature.

8,600 c.f.m.

33,840 B.t.u./hour x 1.44 = 71.6 Gr./lb. = 57.9° F.

d.p. temperature.

Referring the d.b. and d.p. temperatures to psychrometric chart, the w.b. temperature is 58.8° F.

Having 1.9° difference between d.b. and d.p. temperature is within the limit and is okay to use all of the air through the coils.

Therefore, the temperature of the air which must leave the evaporator (Continued on next page)

Table 1—Suggested Coil Temperatures, Velocities

"ST" Ratio	Coil Temperature	Air Velocity
.5 to .65	35° to 42°	350 to 450 f.p.m.
.66 to .75	40° to 46°	450 to 500 f.p.m.
.76 to .85	45° to 49°	500 to 600 f.p.m.
.86 to .95	48° to 52°	600 to 700 f.p.m.

The recirculated air is taken as the same temperature as the inside design conditions. It is based on the assumption that the air returned from the space to the cooling coil is the same temperature as in the space.

In this case it is 80° F. d.b. and 67° w.b. temperatures. Therefore:
Total air = 8,600 c.f.m. = 100.0%
Outside air = 1,700 c.f.m. = 19.8%

Recirculated air = 6,900 c.f.m. = 80.2%

STEP NO. 2

Determine temperature of air mixture entering evaporators.

It is obvious by mixing 95° F. and 80° F. air, that the temperature of the mixture will fall between 80° F. and 95° F., and that the exact point would be according to the ratio of each kind of air.

In this case we have found that the mixture consists of 19.8% outside air at 95° F. and 80.2% recirculated air at 80° F.

The following procedure can be used to arrive at the d.b. temperature of the mixture:

(80° F. x 80.2%) + (95° F. x 19.8%) = 83.0° F. d.b. temperature.

In figuring the w.b. temperature of the mixture, the only correct method would be to use the percentages with the total heats of the w.b. temperature of each kind of air and then to convert the total heat of the mixture back to the w.b. temperature.

For a simple procedure, use the same procedure for the w.b. as used above for the d.b. This of course will not be the true value, as there may be an error of approximately up to .2° F.

In comfort cooling this is not enough to hurt the circulations. Therefore, using the same procedure as above and using w.b. temperatures, we have the following:

(67° F. x 80.2%) + (75° F. x 19.8%) = 68.6° F. w.b. temperature.

Therefore, the temperatures of the air mixture entering the evaporators are:

D.B. temperature 83.0° F.

W.B. temperature 68.6° F.

D.P. temperature 61.0° F.

(from psychrometric chart)

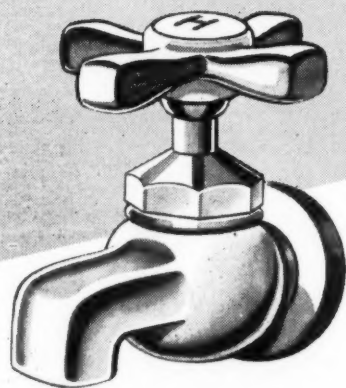
Grains per pound of air 80.2 grs./lb.

(from psychrometric chart)

STEP NO. 3

Determine temperature of the air which must leave the evaporator. (See preceding section "Amount of Air Through the Cooling Coils.")

Thermopane reduces heat leak... for better equipment performance

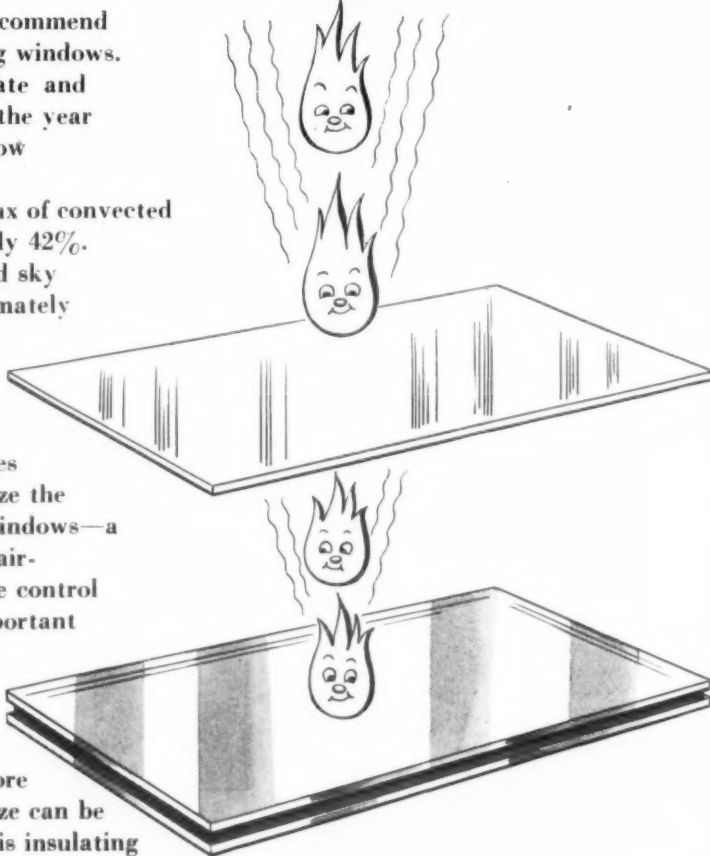


To assure peak performance, winter or summer, recommend that your customers install Thermopane* insulating windows. This insulating glass unit helps maintain accurate and economic operation of air-conditioning equipment the year 'round. Here are the simple facts that show how Thermopane works hand in hand with you:

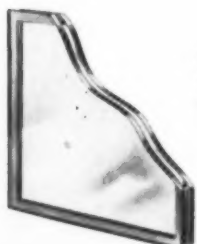
IN SUMMER: Thermopane cuts down the influx of convected and conducted heat through glass by approximately 42%. This, plus the fact that the percentage of solar and sky energy transferred through Thermopane is approximately 10% less than that passing through single glass, means that your equipment operates more efficiently and that your customers save money on power costs.

IN WINTER: Thermopane's insulating qualities insure more comfort. These qualities also minimize the possibility of frost and condensation forming on windows—a condition which removes valuable humidity from air-conditioned rooms or offices. By aiding in accurate control of proper humidities, Thermopane performs an important service to installers of air-conditioning equipment.

Thermopane consists of two or more panes of glass, with dehydrated air between, factory-fabricated into a unit with L-O-F's Bondermetic (metal-to-glass) Seal*. It is readily available in more than 70 standard sizes and even units of special size can be delivered promptly. For helpful information on this insulating windowpane, write for Don Graf's Technical Sheets on Thermopane. Libbey-Owens-Ford Glass Co., 1798 Nicholas Bldg., Toledo 3, O.



Cutaway view of double Thermopane showing insulating air space and Bondermetic Seal.



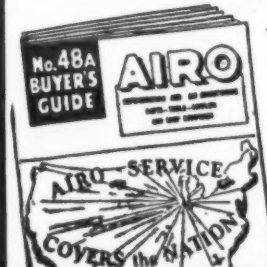
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Selecting Coils--

(Continued from preceding page)
 tors, with all of the air passing through the evaporators, is as follows:

D.B. Temperature	59.8° F.
W.B. Temperature	58.8° F.
D.P. Temperature	57.9° F.
Grains per pound	71.6

STEP NO. 4

Selection of evaporators.
 In general the following information is required to select the evaporators from any manufacturer's catalogue:

In this case we have the following:

D.B. temperature entering evaporator	83.0° F.
W.B. temperature entering evaporator	68.6° F.
D.B. temperature leaving evaporator	59.8° F.
W.B. temperature leaving evaporator	58.8° F.
Velocity of air through evaporators	500 f.p.m. (assumed).
Temperature of evaporator	45° F. (assumed).

The velocity of the air through the evaporator and the temperature of the evaporator have been assumed in accordance with Table 1, this section.

8,600 c.f.m.
 = 17.2 sq. ft. of
 500 f.p.m.
 coil face area required.

Referring to Table 2, a coil nearest to this face area is two (2) 29 in. units with 4 ft. nominal tube length, each having 8.18 sq. ft. of face area. Total face area is 2 x 8.18 or 16.36 sq. ft.

8,600 c.f.m.
 = 525 f.p.m., which
 16.36 sq. ft.
 is actual velocity.

The actual velocity of 525 f.p.m. is so close to the assumed velocity of 500 f.p.m., that 500 f.p.m. can be used in the selection.

By referring to Table 8, for 500 f.p.m. face velocity and 45° F. evaporator temperature, we find the 68.6° F. w.b. to be between the 68° F. and 69° F. w.b. entering column.

We must interpolate:

(a) At 68° w.b. in the entering wet bulb column and opposite in the leaving wet bulb column, we find the nearest to the leaving w.b. as required 58.8°, to be 56.2 w.b. and we also find that a five (5) row coil is required.

At 69° w.b. in the entering wet bulb column and opposite in the leaving wet bulb column, we find

Table 2—Physical Data on Aerofin Direction Expansion Centrifugal Header Units
 2 to 6 Rows Deep—Designated as Numbers 82, 83, 84, 85, 86, C. H. Direct Expansion Units

Nominal Tube Length	Net Face Area Sq. Ft.			Overall Dimension of Casing (Including 1½" Bolting Flange)								Approximate Weight in Pounds, Including Casing—For 29" Units*									
	20½" Unit	29" Unit	37½" Unit	For 20½" Units		For 29" Units		For 37½" Units		Across Tubes	Along Tubes	2 Rows #82		3 Rows #83		4 Rows #84		5 Rows #85		6 Rows #86	
				Across Tubes	Along Tubes	Across Tubes	Along Tubes	Across Tubes	Along Tubes			Actual	Shipping	Actual	Shipping	Actual	Shipping	Actual	Shipping	Actual	Shipping
2' 0"	....	3.96	....	....	....	29"	2' 8½"	....	....	106	150	132	176	159	203	195	239	209	253		
2' 6"	3.35	5.01	6.66	20½"	3' 2½"	29"	3' 2½"	37½"	3' 2½"	121	162	151	192	201	242	246	287	265	306		
3' 0"	4.06	6.06	8.06	20½"	3' 8½"	29"	3' 8½"	37½"	3' 8½"	135	185	170	220	221	271	275	325	297	347		
3' 6"	4.76	7.12	9.46	20½"	4' 2½"	29"	4' 2½"	37½"	4' 2½"	157	217	193	253	247	307	310	370	335	395		
4' 0"	5.47	8.18	10.87	20½"	4' 8½"	29"	4' 8½"	37½"	4' 8½"	170	237	210	277	276	343	348	415	376	443		
4' 6"	6.18	9.24	12.29	20½"	5' 2½"	29"	5' 2½"	37½"	5' 2½"	189	256	234	301	309	376	384	451	423	490		
5' 0"	6.89	10.3	13.68	20½"	5' 8½"	29"	5' 8½"	37½"	5' 8½"	202	276	252	326	337	411	427	501	465	539		
5' 6"	7.60	11.34	15.1	20½"	6' 2½"	29"	6' 2½"	37½"	6' 2½"	221	305	281	365	359	443	459	542	499	583		
6' 0"	8.30	12.4	16.49	20½"	6' 8½"	29"	6' 8½"	37½"	6' 8½"	239	324	304	389	407	492	515	600	557	642		
6' 6"	9.00	13.46	17.9	20½"	7' 2½"	29"	7' 2½"	37½"	7' 2½"	253	339	323	409	456	542	572	658	617	703		

From Aerofin Corp.

* For 20½" units use 2/3 of these values.
 * For 37½" use 1-1/3 times these values.

Table 8

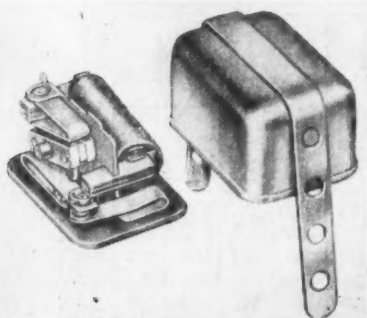
500 Ft. Per Min. Velocity—45 Degree Saturated Suction Temperature at Coil Outlet—6° Superheat

Entering Wet Bulb	Rows Deep	Leaving Wet Bulb	Entering Dry Bulb																		
			68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100		
65°	1	62.3	64.3	65.7	67.1	68.4	69.8	71.1	72.5	73.8	75.1	76.4	77.7	79.0	80.3	81.6	82.9	84.2	85.5		
	2	59.8	61.0	62.3	63.7	64.9	66.2	67.5	68.8	70.0	71.3	72.5	73.8	75.1	76.4	77.7	79.0	80.3	81.6		
	3	57.4	58.5	59.7	60.9	62.1	63.3	64.5	65.7	66.9	68.1	69.3	70.5	71.7	72.9	74.1	75.3	76.5	77.7		
	4	55.0	56.0	57.1	58.2	59.3	60.4	61.5	62.6	63.7	64.8	65.9	67.0	68.1	69.2	70.3	71.4	72.5	73.6		
	5	52.6	53.5	54.5	55.4	56.4	57.4	58.4	59.4	60.4	61.4	62.4	63.4	64.4	65.4	66.4	67.4	68.4	69.4		
	6	50.2	51.0	51.9	52.8	53.7	54.6	55.5	56.4	57.3	58.2	59.1	60.0	60.9	61.8	62.7	63.6	64.5	65.4		
66°	1	63.9	65.6	67.2	68.8	70.3	71.8	73.3	74.8	76.2	77.7	79.1	80.5	81.9	83.3	84.7	86.1	87.5	88.9		
	2	61.5	63.0	64.5	66.0	67.4	68.8	70.2	71.6	73.0	74.4	75.8	77.2	78.6	80.0	81.4	82.8	84.2	85.6		
	3	59.1	60.5	61.9	63.3	64.7	66.1	67.5	68.9	70.3	71.7	73.1	74.5	75.9	77.3	78.7	80.1	81.5	82.9		
	4	56.7	58.0	59.3	60.6	61.9	63.2	64.5	65.8	67.1	68.4	69.7	71.0	72.3	73.6	74.9	76.2	77.5	78.8		
	5	54.3	55.5	56.7	57.9	59.1	60.3	61.5	62.7	63.9	65.1	66.3	67.5	68.7	69.9	71.1	72.3	73.5	74.7		
	6	51.9	53.0	54.1	55.2	56.3	57.4	58.5	59.6	60.7	61.8	62.9	64.0	65.1	66.2	67.3	68.4	69.5	70.6		
67°	1	65.5	67.1	68.6	70.1	71.6	73.1	74.6	76.1	77.5	79.0	80.4	81.9	83.3	84.7	86.1	87.5	88.9	90.3		
	2	63.1	64.5	65.9	67.3	68.7	70.1	71.5	72.9	74.3	75.7	77.1	78.5	79.9	81.3	82.7	84.1	85.5	86.9		
	3	60.7	62.0	63.3	64.6	65.9	67.2	68.5	69.8	71.1	72.4	73.7	75.0	76.3	77.6	78.9	80.2	81.5	82.8		
	4	58.3	59.5	60.7	61.9	63.1	64.3	65.5	66.7	67.9	69.1	70.3	71.5	72.7	73.9	75.1	76.3	77.5	78.7		
	5	55.9	57.0	58.1	59.2	60.3	61.4	62.5	63.6	64.7	65.8	66.9	68.0	69.1	70.2	71.3	72.4	73.5	74.6		
	6	53.5	54.5	55.5	56.5	57.5	58.5	59.5	60.5	61.5	62.5	63.5	64.5	65.5	66.5	67.5	68.5	69.5	70.5		
68°	1	67.1	68.6	70.1	71.6	73.1	74.6	76.1	77.5	79.0	80.4	81.9	83.3	84.7	86.1	87.5	88.9	90.3	91.7		
	2	64.7	66.0	67.3	68.6	69.9	71.2	72.5	73.8	75.1	76.4	77.7	79.0	80.3	81.6	82.9	84.2	85.5	86.8		
	3	62.3	63.5	64.7	65.9	67.1	68.3	69.5	70.7	71.9	73.1	74.3	75.5	76.7	77.9	79.1	80.3	81.5	82.7		
	4	59.9	61.0	62.1	63.2	64.3	65.4	66.5	67.6	68.7	69.8	70.9	72.0	73.1	74.2	75.3	76.4	77.5	78.6		
	5	57.5	58.5	59.5	60.5	61.5	62.5	63.5	64.5	65.5	66.5	67.5	68.5	69.5	70.5	71.5	72.5	73.5	74.5		
	6	55.1	56.0	56.9	57.9	58.8	59.8	60.7	61.7	62.6	63.6	64.5	65.5	66.4	67.4	68.3	69.3	70.2	71.2		
69°	1	68.7	70.1	71.5	72.9	74.3	75.7	77.1	78.5	79.9	81.3	82.7	84.1	85.5	86.9	88.3	89.7	91.1	92.5		
	2	66.3	67.5	68.8	70.1	71.4	72.7	74.0	75.3	76.6	77.9	79.2	80.5	81.8	83.1	84.4	85.7	87.0	88.3		
	3	63.9	65.0	66.2	67.4	68.6	69.8	71.0	72.2	73.4	74.6	75.8	77.0	78.2	79.4	80.6	81.8	83.0	84.2		
	4	61.5	62.5	63.6	64.7	65.8	66.9	68.0	69.1	70.2	71.3	72.4	73.5	74.6	75.7	76.8	77.9	79.0	80.1		
	5	59.1	60.1	61.1	62.1	63.1	64.1	65.1	66.1	67.1	68.1	69.1	70.1	71.1	72.1	73.1	74.1	75.1	76.1		
	6	56.7	57.6	58.5	59.4	60.3	61.2	62.1	63.0	63.9	64.8	65.7	66.6	67.5	68.4	69.3	70.2	71.1	72.0		
70°	1	70.3	71.6	72.9	74.2	75.5	76.8	78.1	79.4	80.7	82.0	83.3	84.6	85.9	87.2	88.5	89.8	91.1	92.4		
	2	67.9	69.0	70.2	71.4	72.6	73.8	75.0	76.2	77.4	78.6	79.8	81.0	82.2	83.4	84.6	85.8	87.0	88.2		
	3	65.5	66.5	67.6	68.7	69.8	70.9	72.0	73.1	74.2	75.3	76.4	77.5	78.6	79.7	80.8	81.9	83.0	84.1		
	4	63.1	64.1	65.1	66.1	67.1	68.1	69.1	70.1	71.1	72.1	73.1	74.1	75.1	76.1	77.1	78.1	79.1	80.1		
	5	60.7	61.6	62.5	63.4	64.3	65.2	66.1	67.0	67.9	68.8	69.7	70.6	71.5	72.4	73.3	74.2	75.1	76.0		
	6	58.3	59.2	60.1	61.0	61.9	62.8	63.7	64.6	65.5	66.4	67.3	68.2	69.1	70.0	70.9	71.8	72.7	73.6		

500 Ft. Per Min. Velocity—45 Degree Saturated Suction Temperature at Coil Outlet—6° Superheat

			Entering Dry Bulb																		
Entering Wet Bulb	Rows Deep	Leaving Wet Bulb	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100		
			Leaving Dry Bulb																		
71°	1	67.5					69.3	70.6	71.9	73.2	74.5	75.9	77.2	78.5	79.8	81.0					
	2	64.7					65.7	66.9	67.5	68.4	69.3	70.2	71.1	72.0	72.9	73.8					
	3	62.0					62.5	63.1	63.7	64.3	64.9	65.5	66.1	66.7	67.3	67.9					
	4	59.8					60.2	60.6	61.0	61.4	61.8	62.2	62.6	63.0	63.4	63.8					
	5	58.0					58.2	58.4	58.7	59.0	59.3	59.6	59.9	60.1	60.4	60.8					
72°	1	66.2					66.2	66.6	66.7	66.9	67.1	67.3	67.5	67.7	67.9	68.1					
	2	68.5					71.0	72.3	73.6	74.9	76.2	77.7	79.0	80.3	81.6	82.9					
	3	65.8					67.0	67.8	68.5	69.2	69.9	70.6	71.3	72.0	72.7	73.4					
	4	62.8					63.7	64.3	64.9	65.5	66.2	66.7	67.3	67.9	68.5	69.0					
	5	60.4					61.0	61.4	61.8	62.2	62.6	63.0	63.4	63.8	64.2	64.6					
73°	1	65.5					65.5	65.8	66.1	66.3	66.5	66.7	66.9	67.1	67.3	67.5					
	2	67.7					67.7	67.8	67.9	68.0	68.1	68.2	68.3	68.4	68.5	68.6					
	3	62.8					63.6	64.1	64.6	65.1	65.6	66.1	66.6	67.1	67.6	68.1					
	4	60.4					60.4	60.5	60.6	60.7	60.8	60.9	61.0	61.1	61.2	61.3					
	5	58.5					58.5	58.6	58.7	58.8	58.9	59.0	59.1	59.2	59.3	59.4					
73°	1	69.5					71.2	72.5	73.8	75.2	76.6	78.0	79.3	80.7	82.1	83.5					
	2	66.3					67.2	68.0	68.8	69.7	70.6	71.5	72.3	73.2	74.0	74.9					
	3	63.6					64.0	64.6	65.2	65.8	66.4	67.0	67.6	68.2	68.8	69.4					
	4	61.0					61.2	61.6	61.9	62.3	62.6	63.0	63.3	63.7	64.1	64.4					
	5	59.1					59.1	59.4	59.7	60.0	60.3	60.6	60.9	61.2	61.4	61.7					
74°	1	70.2					72.5	73.8	75.2	76.5	77.8	79.0	80.3	81.6	82.9	84.2					
	2	67.0					68.3	69.1	70.1	71.0	71.8	72.7	73.6	74.4	75.3	76.2					
	3	64.3					64.3	64.9	65.5	66.1	66.7	67.3	67.9	68.5	69.1	69.7					
	4	61.8					62.2	62.6	63.0	63.3	63.7	64.1	64.5	64.9	65.3	65.6					
	5	59.8					60.1	60.4	60.7	61.0	61.3	61.6	61.8	62.1	62.4	62.7					
75°	1	71.3					72.4	73.6	74.9	76.3	77.6	78.9	80.1	81.4	82.7	84.0					
	2	68.0					69.2	69.9	70.8	71.7	72.6	73.5	74.3	75.2	76.1	77.0					
	3	65.2					65.7	66.3	67.0	67.6	68.2	68.8	69.4	70.0	70.6	71.2					
	4	62.7					62.7	63.1	63.5	63.9	64.3	64.7	65.1	65.5	65.9	66.3					
	5	60.3					60.5	60.7	60.9	61.2	61.5	61.8	62.1	62.4	62.6	62.9					
76°	1	72.2					74.4	75.8	77.2	78.5	79.8	81.1	82.4	83.7	85.0	86.4					
	2	69.0					70.3	71.3	72.2	73.1	74.0	74.9	75.8	76.7	77.6	78.6					
	3	66.6					66.8	67.2	67.6	68.0	68.4	68.8	69.2	69.5	70.0	70.4					
	4	63.3					63.6	64.0	64.4	64.8	65.2	65.6	66.0	66.4	66.8	67.2					
	5	61.0					61.2	61.5	61.7	62.0	62.3	62.6	62.9	63.2	63.4	63.7					
77°	1	73.0					75.1	76.5	77.9	79.3	80.6	81.9	83.2	84.5	85.8	87.2					
	2	69.7					71.1	72.1	73.2	74.2	75.1	76.0	76.9	77.8	78.7	79.6					
	3	66.5					67.5	68.4	69.1	69.9	70.7	71.5	72.2	72.9	73.6	74.3					
	4	64.0					64.3	64.8	65.4	65.9	66.4	66.9	67.4	67.9	68.4	68.9					
	5	61.7					62.0	62.3	62.6	62.9	63.1	63.4	63.7	64.0	64.3	64.6					
78°	1	74.0					76.3	77.6	79.0	80.4	81.7	83.0	84.4	85.7	87.0	88.3					
	2	70.5					71.8	72.5	73.4	74.3	75.2	76.1	77.0	77.9	78.8	79.6					
	3	68.0					68.2	68.8	69.4	70.0	70.6	71.3	72.0	72.7	73.2	73.8					
	4	65.5					65.8	66.1	66.4	66.8	67.2	67.6	68.0	68.4	68.8	69.1					
	5	62.5					62.6	63.0	63.3	63.6	63.9	64.2	64.6	64.9	65.2	65.5					
79°	1	75.0					77.6	78.9	79.3	80.6	82.0	83.4	84.8	86.2	87.5	88.9					
	2	71.5					72.3	73.2	74.1	75.0	75.9	76.8	77.7	78.6	79.5	80.4					
	3	69.0					69.3	69.9	70.5	71.2	71.8	72.4	73.0	73.6	74.2	74.8					
	4	66.5					66.5	66.6	66.5	67.1	67.5	67.9	68.3	68.8	69.2	69.6					
	5	63.2					63.2	63.5	63.8	64.0	64.3	64.7	65.0	65.3	65.6	65.9					

Motor Starting Switch Covers Wide Range



CHICAGO—Fitch, Allen & Co. here has recently acquired exclusive manufacturing and sales rights to a new universal type motor starting switch, developed by Borg-Ericson Corp.

It is said that the new switch can be used to start single phase, split phase, or capacitor start, 90 to 130 volt, 50 or 60 cycle motors, ranging from 1/8 to 1/2 hp. inclusive.

It is provided with a flexible slotted metal strap for rapid external or internal mounting, according to the manufacturer. The mechanism is completely enclosed in a cadmium-plated case. Over-all dimensions are 1 1/2 in. wide by 1 1/8 in. long by 1 in. high; the mounting strap is 6 in. long.

The switch is connected in series with the working winding of any type motor and works by momentum of the starting current and responds to open the starter winding circuit between 1,400 and 1,500 r.p.m., the company explains.

What's New

Phase-Sequence Indicator Has Many Applications

SCHENECTADY, N. Y.—A new phase-sequence indicator designed for a wide range of applications in the manufacturing, industrial, and central station fields has been announced by General Electric's Meter and Instrument Divisions.

Entirely static, with no moving parts, bearings, or pivots, the new indicator is applicable to either 120, 240, or 480-volt circuits at 25, 50, and 60 cycles. It is housed in a leatherette-covered wooden case, with



a cover to protect the two Type EN-51 standard neon lamps. Three 30-in. leads, which are an integral part of the instrument, have insulated clips to assure quick, easy operation.

The indicator can be used:

1. To predict the directional rotation of polyphase meters for machine drives, elevators, air conditioning equipment, and similar equipment.
2. To determine the proper connections for paralleling generators, transformer banks, and power buses.
3. To determine proper connections for watt-hour meters, reactive-component meters, power-factor meters, kva meters, reverse-power relays, and phase-sequence relays.
4. To check vacuum-tube, thyatron, rectifier, and inverter installations.
5. To study vector relations of polyphase circuits.

Harvester Adds Large Chest-Type Freezer

CHICAGO—Newest addition to the International Harvester refrigeration line is a heavy-duty freezer, model 15-FC—a chest-type freezer with 15.8-cu. ft. capacity that stores up to 553 pounds of frozen food.

Lighted interior and an alarm to warn of temperature rise are new Harvester features.

A main feature of the new model is the large "freeze-area" that occupies more than 4 sq. ft. at the bottom of the cabinet interior to provide oversize freezing capacity. Over-all dimensions are 37 1/4 in. high, 73 1/2 in. wide, and 29 in. deep (excluding hardware).

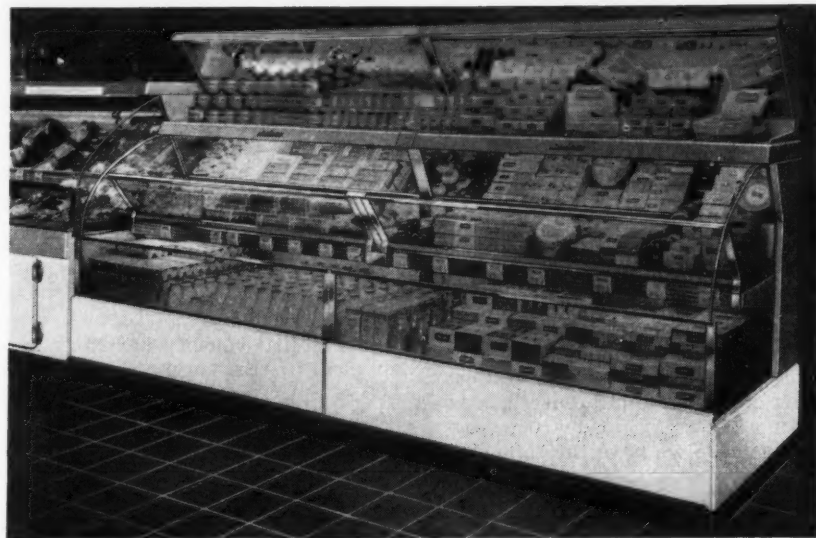
Features that have distinguished all other Harvester freezer models are included: streamlined styling with Dulux enamel finish over Bond-erite; all-steel welded construction; Vac-U-Seal hermetically-sealed insulation; Frost-Lok breaker strip; automatic temperature control; spring-counterbalanced hinges to hold lid open and provide finger-tip control. The unit is Harvester's hermetically-sealed model with a five-year protection plan.

National magazines late this year will carry full-page four-color advertisements to introduce this new International Harvester heavy-duty home freezer. Further promotion is being planned to run through 1949.

Production on the new model is starting this month. Other models in the International Harvester line include a 4.2-cu. ft. model that is claimed to hold 150 lbs. of frozen food, and a 11.1-cu. ft. model.

In some price revisions announced early in August, International Harvester stated that the new Model 15FC 15-cu. ft. model would be priced at \$475. The 4-cu. ft. model price is \$229.75, and the 11-cu. ft. model carries a list price of \$398.

New International Harvester home freezer model 15-FC has 15.8-cu. ft. capacity and features a new "freeze area," temperature failure alarm, and lighted interior.



New McCray model GI-6 display case with "third deck."

McCray Introduces a 'Triple-Deck' Case

KENDALLVILLE, Ind.—Two new open self-service display cases—Models GH10 and GI-6—have been introduced by McCray Refrigerator Co. here.

Model GH10, a double-duty case, is suitable for displaying meats, vegetables, or dairy products. The only change required for using the case for the different products is a change in the shelving. No change is needed in the sign nor the coiling.

Built in the 10 ft. length only, it is 62 1/2 in. high, 42 in. deep, and 40 in. high to front rail. The display shelf has an area of 23 1/2 sq. ft., while the refrigerated storage base has 36 cu. ft. capacity.

Cooling is by means of three McCray coils—one back of the large mirror across the back of the display section, one bare tube coil on the floor of the display section, and a fin type coil in the base. Electric and refrigerant connections are at the back of the top of the case, so arranged that connection can be run right, left, or back from the case. Drain connections are brought out through the base at the front.

The Model GI-6 case is claimed to be "something entirely new" in refrigerated display cases.

Two refrigerated shelves are accessible, providing easy reach-in self-service facilities, but requiring no uncomfortable stooping to reach any section of the two shelves.

"Maximum display with minimum floor area" makes the GI-6 that is ideal for the small store also highly desirable for the larger store, for it will display a large volume with continuous display effect, concentrating the display so the customer can select more items with less moving around, claims McCray.

Two or more cases can be fastened together providing a continuous display. All that is required to make this continuous display is to remove the glass end and the upper metal end panel, then bolt the cases together.

Approximate capacity of the top shelf is 7.5 cu. ft.; the lower shelf, 14.8 cu. ft., or a total of 22.3 cu. ft. Area of the top shelf is 10.1 sq. ft.;

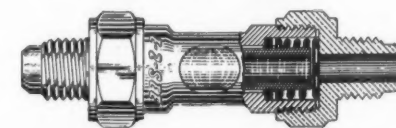
lower shelf 15 sq. ft., or a total of 25.1 sq. ft. Length of the case is 6 ft.; overall depth, 42 1/4 in.; overall height without superstructure, 54 in.

This allows the top of the case to be used as a third unrefrigerated shelf, and at the same time permits the cases to be used for island display. The mirror at the back of the top shelf provides reflective display.

The superstructure is optional. Height overall with the superstructure is 74 1/2 in.

The case is finished in a two-tone finish, white with pearl gray. Heavy metal guards on the top of the display glass protect the glass against breakage, and customers against injury. Heavy plate glass ends are said to increase the visibility into the case and protect against drafts, and also help to conserve refrigeration.

Liquid Indicator Is Positive Sealing



ZELIENOPLE, Pa.—A new liquid indicator claimed to be positively leakproof, capable of withstanding pressures up to 500 p.s.i., and easy to see into has been introduced by Remco, Inc.

Called the "E-Z-See," the indicator employs tubular high pressure Pyrex gauge glass "floating" between spring-compensated neoprene gaskets. The glass is contained within the brass body slotted to show liquid flow.

The gaskets are claimed to maintain a positive seal around tubular glass, and an increase in refrigerant pressure is said to make the seal even tighter.

The liquid indicator is available with two male SAE connections or with one male and one female connection in 1/4, 3/8, and 1/2-in. sizes.

The refrigerant line duct at the rear of the top provides a place for the tubing, keeps it off the floor and out of sight, is easily accessible, and allows the lines to be run to the right or left.

OHIO MOTOR BRUSH KITS



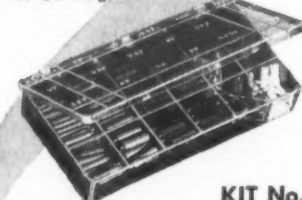
KIT No. 45A

Designed to service popular types of refrigerator motors, (AC current 1/2 to 2 H. P.). A handy assortment affording quick access to the right brush for the right application. Easy code identification.



KIT No. 35A

An all-purpose kit to service popular types of motors ranging from AC current 1/30 H. P. to 5 H. P. Contains 104 single brushes, 28 pairs of brushes. For complete listings write for Catalog 19.



KIT No. 9

A modern transparent package containing 168 brushes, 40 springs and 10 wicks for general purpose applications on motor driven appliances. Refills may be ordered.

BUY YOUR
CARBON BRUSHES
FROM A
SINGLE
SOURCE

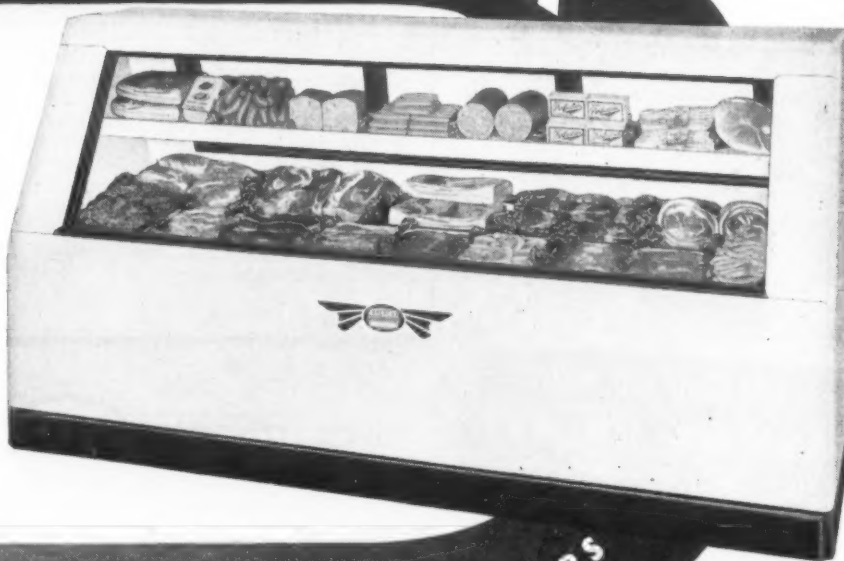
ORDER A COMPLETE
STOCK TODAY!

THE OHIO
CARBON COMPANY

12508 BERA ROAD
CLEVELAND 11, OHIO

TRAFFIC CENTER

The meat department is the focal point in food stores. SHERER display cases naturally attract the flow of traffic by making possible outstanding displays of perfectly kept meat.



REFRIGERATED MERCHANDISERS

SHERER-GILLETT CO., MARSHALL, MICHIGAN

ASE FROZ-N-FOOD LOCKERS

LOCKERS—specifically designed to satisfy the varying needs of your patrons. Knowingly made to minimize your maintenance costs.

A-S-E Froz-N-Food Units come in a variety of types and sizes, making them easy to rent. Easily and inexpensively installed and maintained. Flexible to provide the convenient answer to your expansion problems. Drop as a post-card for further details.

ALL-STEEL-EQUIP COMPANY, INC.
450 GRIFFITH AVE. AURORA, ILL.

What's New (Con't)

Instruments Housed In Packaged Unit Cabinet

FOXBORO, Mass. — Among the "packaged unit" instrument cabinets offered by the Foxboro Co. here, one is described as suitable for almost universal application with industrial or commercial air conditioning systems.

This adaptability is illustrated by two recent installations: one in a Southern textile mill, and the other in the new building of the New England Telephone & Telegraph Co. in Boston, said to be planned as the world's most modern central telephone exchange.

In appearance the two cabinets are almost identical. Each has a Dynalog (electronic) temperature indicator, above a key-switch panel by means of which the indicator is connected with numerous resistance bulb circuits, for measuring temperatures at various points.

But while the unit for the textile mill measures only dry-bulb temperatures, at 28 points in the weave rooms, the one in the telephone building will measure both temperature and dewpoint, at 32 different places, including switchboard rooms, offices, halls, and cafeterias.

The indicating instrument has a dual range, the outer scale being for dry-bulb temperature and the inner scale for dewpoint temperature, as determined by Dewcel measuring elements.

For either reading, at any of the points where the bulbs are located, the engineer simply flips one of the key switches; or he can scan all 32 points in succession, within a minute or two, and thus be assured that comfort conditions are satisfactory throughout the building.

The "packaged unit" described is

80 in. high, 20 in. wide, and 15 in. deep, of cold rolled steel, and fully enclosed. Steel doors at the back give access to the wiring, all of which is done at the factory, so that only external connections are necessary when the cabinet is installed. The unit is finished in gray enamel with maroon trim.

Varied Applications Seen For Coin Meter Timer



CHICAGO—International Register Co. here has announced production on a new low-priced coin meter designed for use in rental of washing machines, irons, dryers, refrigerators, radios, television sets, evaporative coolers, air conditioning units, fans, hot plates, and other products.

Especially designed to handle a wide variety of minute timings, it can collect a quarter for every 5 minutes, 10 minutes, etc., up to 60 minutes. The meter operates on quarters only.

Timings can be changed in less than three minutes by anyone, merely by exchanging timing gears which requires only the use of a screwdriver. The meter accommodates \$40 in quarters. Pre-payment capacity is one to 23 quarters.

The case is constructed of 21 gauge drawn steel, strongly reinforced, and

is equipped with a special heavy-duty lock.

The M-20 meter may be placed on any convenient table or shelf. For mounting on the appliance or wall, holes are provided in the back of the meter. Installation is accomplished merely by opening the meter door, inserting the plug from the appliance into the convenient receptacle located in the lower left corner of the case, and plugging the cord from the meter into any electric outlet.

A clamp is provided in the bottom of the case to hold the appliance cord fast. When the meter door is locked, the appliance cord cannot be pulled out of the meter.

A new fully enclosed clock motor requires no oiling and is not susceptible to damage from dust, moisture, or roaches.

Burner Control Monitors Main & Pilot Flames

CAMBRIDGE, Mass.—To meet the need for efficient flame failure safeguards and controls on gas-oil conversion burners, Combustion Control Corp. is offering "Fireye Systems" FF-2 and FF-6.

System FF-2 is used on oil burners which use gas as an alternate fuel. The system consists of photoelectric scanner type 45PH5, electronic flame rod type 45JP1, and programming control type 24PJ8.

When the system is used on oil, the photoelectric scanner monitors the main oil flame providing instantaneous safety shutdown on flame failure. The programming control

'Fireye' Burner Control



"Fireye" controls protect against flame failure in gas-oil conversion burners.

programs the sequences of ignition and fuel systems, and the electronic rod monitors the pilot gas flame, preventing the main fuel valve from opening until pilot flame is properly established.

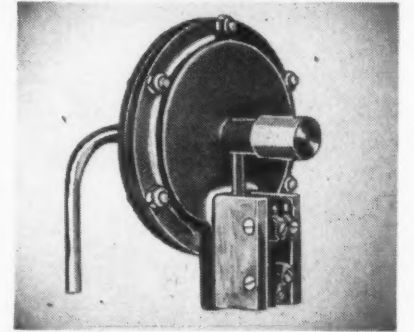
When the system is converted to gas, the electronic rod monitors the continuous gas pilot flame and the programming control programs fuel and ignition systems. A simple switching means is all that is required for the change-over from oil to gas.

System FF-6 is used on gas burners which use light oil as an alternate fuel. The system includes electronic rod type 45JQ1 and control type 24QJ5. The electronic rod monitors the continuous gas pilot, providing through the control instantaneous safety shutdown of main flame on pilot flame failure. Monitoring operations on gas and light oil are identical and no wiring changes are required on change-over.

Safety Device Responds To Static Pressures

FOREST HILLS, N. Y.—For applications on low pressures, where regulation is required in inches of water, Coral Designs Co. here has recently announced its 104 Static Pressure Controls.

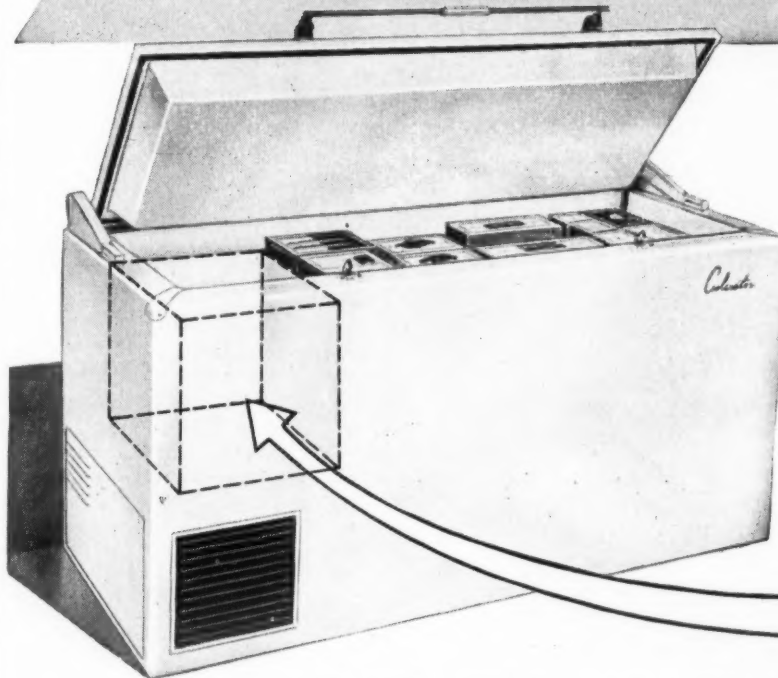
They are said to have many applications in air conditioning and heating, where it is necessary that a circuit be controlled from the exhaust side of a fan, and, in event of fan failure, auxiliary equipment be shut down. Units are obtainable in standard ratings ranging from 0 in. to 10 in. of water pressure, with limited range adjustment and fixed



differentials having a minimum of .2 in. of water.

The controls, it is said, can be made to operate with any pressure greater than .3 in. of water, this sensitivity is made possible by use of a neoprene rubber diaphragm to directly actuate the enclosed snap action switch through a disc.

COOLERATOR IS MAKING FREEZER HISTORY



THE COMPLETE ALL-PURPOSE FREEZER

A separate compartment "quick freezes" 60 lbs. of fresh food while simultaneously providing safe, low temperature for over 500 lbs. of frozen food in the storage section.

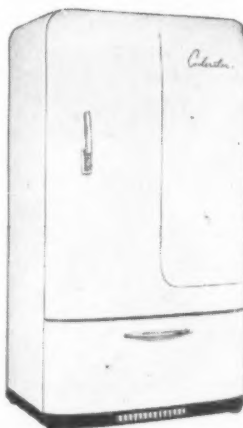
WITH THIS BIG, FULLY FEATURED MODEL

It's no accident that Coolerator leads the field in its size and price class.* In California, Illinois, or Texas—in the big cities—in the small towns—and on the farm—the story is the same. Home Freezer buyers want them big and fully-featured—to get maximum economy through large food purchases—to provide the widest variety of good things to eat—and still have plenty of room to store pies, cakes, and other baked goods for months ahead.

Housewives today are buying home freezers for better living at lower cost and for greater freedom from the kitchen. They're buying more Coolerators, because it's easier for dealers to prove that a Coolerator will quickly pay for itself in savings.

Your Coolerator Distributor has a selling program that's geared for every market. Call him today and get started now to reap a windfall of profits in the fastest growing segment of the appliance industry.

*6 out of 10 Freezers in this size and price classification sold during 1948 were Coolerators.



COOLERATOR REFRIGERATORS

From top to bottom, inside and out, the big family-size Coolerators are crammed with features prospects can see and understand. They are available in fully-featured DeLuxe Models which incorporate giant frozen food lockers, big ice cube capacity, over-sized Crisp-O-Lators, ample dry storage bins, and a host of other time, money, and step-saving features. In the Standard Models they offer outstanding value with a gratifying record of dependability and economy of operation.



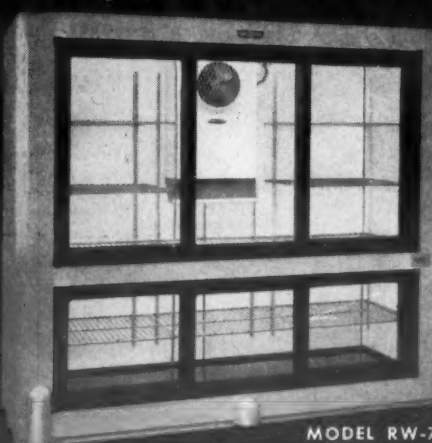
THE COOLERATOR COMPANY
DULUTH 1, MINNESOTA

COOLERATOR IS A NAME THAT WOMEN KNOW

Survey after survey proves that 8 out of 10 women recognize the name, "Coolerator" as that of a manufacturer of fine refrigeration equipment. 15 years of big scale national advertising has made Coolerator a household word in millions of homes. Full page, four color ads, month after month, in the nation's top magazines are continually selling Coolerator products to your customers.

FOGEL
PHILADELPHIA, PA.

THE FOGEL "Full-Vision" WALL CASE



IDEALLY SUITED FOR SELF-SERVICE

Showmanship in... SELLING!

The Fogel "Full-Vision" Wall Case is a master showman for the display and sale of dairy products, delicatessen, packaged fresh meats, fruits, vegetables, flowers, pharmaceuticals, and all perishables. This beautifully designed, streamlined case features 99% visual display. Visual display that INCREASES SALES.

This rugged all-steel case has perfectly balanced Fogel refrigeration... guaranteeing years of trouble-free, worry-free, service. Why not order Your Fogel "Full-Vision" Wall Cases TODAY, and enjoy the profits resulting from the sales of the one case that's in a class by itself. Feel welcome to write for further information concerning this, or other, Fogel quality-engineered cases.

NOW AVAILABLE IN SEVERAL SIZES

One franchise gives you a complete commercial refrigeration line.

FOGEL REFRIGERATOR COMPANY
5400 EADOM STREET • PHILADELPHIA 37, PA.

Quality manufacturers, for almost one-half century, of Display Cases, Reach-Ins, Walk-Ins, and Freezers.



**CUBER with
HORSESHOE BOOSTER**

*An Exclusive
Development
by*
KRAMER

Send for Catalog R-125

KRAMER TRENTON CO. Trenton 5, N. J.

Supply Wholesaler Puts Showcase on Wheels

Trailer Makes Possible 'Spot' Demonstrations

SAN FRANCISCO—The Refrigerating & Power Specialties Co., West Coast refrigeration parts and supplies wholesaler, with warehouses at San Francisco, Portland, Seattle, and Tacoma, has developed an unusual method of bringing the latest developments in the refrigeration industry direct to the customers' door.

The wholesaling firm specially designed and built a 21-ft. trailer showroom. Exterior of the trailer has been painted in a manner which well advertises the firm and the manufacturers represented, and puts particular emphasis on the fact that sales are "wholesale only."

Interior of the trailer is modern in design and is fitted with displays representing practically the complete products of the manufacturers represented.

When the trailer is traveling in northern California, the lines displayed in it will be those of the Brunner Mfg. Co., Peerless of America, and Sporlan Valve Co.—all laid out in an attractive manner with explanatory labels and posters.

When the trailer travels into the Oregon and Washington territory, the Universal Cooler line of condensing units, compressors, and parts will replace the line of the Brunner company.

During part of the past summer, this "mobile showcase" has been traveling throughout the northern California territory. Refrigeration dealers, servicemen, and contractors have expressed enthusiasm over the method of acquainting them with all the new products and the up-to-date methods of installation.

DISPLAYS CAN BE OPERATING

The trailer carries a 100-ft. reel of heavy electric cord, which can be run into the dealer's office or shop for the purpose of obtaining current to operate the various unit cooler motors; thereby putting the display into action.

Against the front wall of the trailer is a display board on which are mounted various Sporlan expansion valves, solenoid valves, strainers, and "catchalls." After the pictures shown were taken, this board was mounted against the right-hand wall toward the rear of the trailer.

When the trailer makes a visit, it has been the practice to first invite the dealer and the members of his organization to go over the Sporlan expansion valve line item by item, starting with valves of the smallest capacity and working on up to the air conditioning valves and then into the ammonia valves.

ANSWERS THE QUESTIONS

From experience, it has been found that the salesman and the customer can together work out problems which have arisen during service and installation work. Each customer usually has some "sticker" which can be solved.

The solenoid valves, strainers, and catchalls are then taken up in order.

The Peerless coil line is next on the program; dome coolers usually being taken up first, and then followed by the new-style unit coolers and cascade coolers. The design of the line lends itself to proper display and points such as the new unit coolers being equipped with round cores rather than the conventional square cores has proved an interesting display point. The case coils and flash coolers, the ice makers, heat exchangers, and cold plates are then taken up in order.

The final line on the program consists of the condensing units. Condensing units are displayed in sizes from 1/4 hp. up to 1 hp. in air cooled, and 2 hp. water cooled. Separate compressor bodies of various sizes have also been installed.

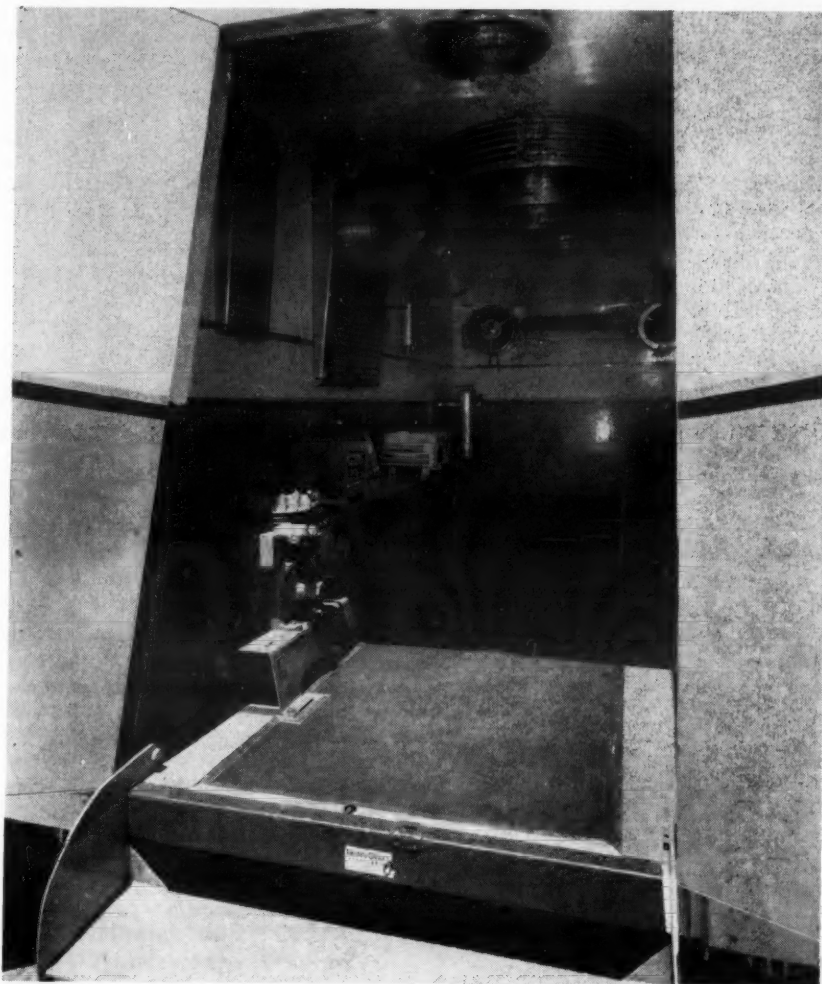
CATALOG RACK INCLUDED

A catalog rack, containing the latest bulletins and engineering data on the equipment displayed, is part of the unit.

The company reports that they intend to periodically renew the display and to bring the trailer to the door of every refrigeration dealer and service organization in northern California, Oregon, and Washington.



The trailer, in addition to being a traveling showroom, also serves as a "traveling billboard" for the refrigeration supplies wholesaling firm.



This picture of the interior of the trailer shows how the wall and ceiling coolers made by Peerless of America are installed for demonstration purposes. A 100-ft. extension cord permits the units to be put into operation.

An Old Favorite
Back Again!

OLYMPIAN BOTTLE COOLERS

by Perlick for
IMMEDIATE DELIVERY

Perlick "Olympian" Bottle Coolers, in standard baked black or the new all stainless steel are now available for prompt shipment in 4 popular sizes. Now vastly improved for maximum bottle cooling performance. Write for Bulletin No. 56.

Also Ice Refrigerated Models



Cutler-Hammer makes a "specific-fit" replacement unit for each of more than 1,000 refrigerator models.

No "modifying", no fussing, no delay when you answer service calls with C-H "specific-fit" replacement control units. You take out the old, put in the new... and you are through! It's the easy, sure way to do the job right because Cutler-Hammer has manufactured such "specific-fit" units for more than 1,000 models of refrigerators built since 1925. And you'll also quickly see how the widely-known Cutler-Hammer name (advertised in The Saturday Evening Post, Time, Newsweek, American Home, Better Homes & Gardens, House & Garden, etc.) builds customer confidence and good will. The C-H refrigeration control catalog, as well as the items you need, are available through your authorized C-H refrigeration wholesaler. Do not forget, this C-H refrigeration control line includes the popular general purpose two-button replacement unit (Type 9502) which incorporates dependable motor overload protection. CUTLER-HAMMER, Inc., 1362 St. Paul Ave., Milwaukee 1, Wisconsin.



Featured by Cutler-Hammer refrigeration wholesalers and recommended by alert service dealers from coast to coast.

Take a look at these... just a few of the "specific-fit" controls in the unequalled Cutler-Hammer line.



PA 100*
spells...
7-WAY SAFETY

1. maximum capacity...
2. instant action...
3. removal of acids and corrosive compounds...
4. freedom from caking...
5. freedom from channeling of refrigerant...
6. will not attack metals or alloys...
7. dust-free drying.

...No wonder more leading service engineers demand

PA 100 for all their refrigerant drying needs... Your jobber stocks PA 100.



DAVISON
refrigeration grade
SILICA GEL

... in the can with the blue label and in dehydrators charged by the cartridge manufacturer.

*U. S. REG. APP. FOR

THE DAVISON CHEMICAL CORPORATION

Progress through Chemistry



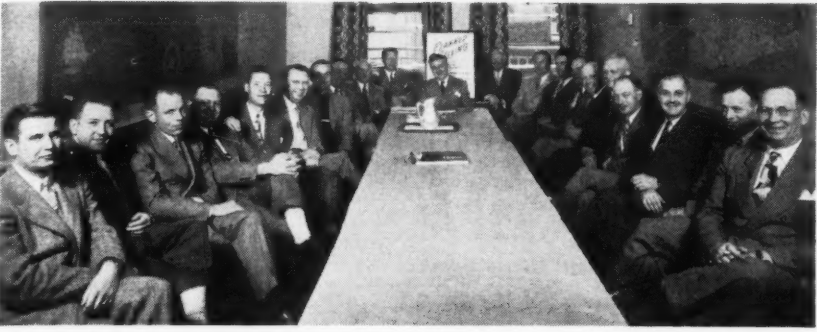
BALTIMORE-3, MD.

PIONEERS AND DEVELOPERS OF SILICA GEL

Canadian exclusive sales agents for DAVISON SILICA GEL:

CANADIAN INDUSTRIES LIMITED, Sales Division, Chemical Group

Getting the Latest Sales Strategy



At the head of the table, sitting in front of the easel, Harold L. Schaefer, president of Schaefer, Inc., presents his "An Approach to Profit" ideas to sales personnel in Seattle. To his left is Al Rose, Schaefer sales manager.

Schaefer Executives Push 'Increased Profit For Users' Theme at West Coast Meetings

MINNEAPOLIS — Using an elaborate new sales presentation manual "An Approach to Profit" as the foundation for a more intensive sales program through all of the company's distributors, Harold L. Schaefer, president and Al Rose, sales manager of Schaefer, Inc., manufacturer of ice cream cabinets, commercial low-temperature cabinets, and home and farm freezers, have just concluded a series of distributor meetings in the Western States.

Meetings were held in Salt Lake City and Seattle for the executives and sales personnel of Monroe Dairy Machinery, Inc., from Seattle, Portland, Spokane, Boise, and Salt Lake City. They are Schaefer distributors for the Northwestern States.

In Los Angeles the organizations of the Hughes Sales Co., Los Angeles, the Schaefer distributor for southern California and the Barnett Co., San Francisco, distributor for northern California attended a joint meeting held at the Town House under most pleasant surroundings.

Increased profit for users of the cabinets was the main theme emphasized in these distributor meetings. The merchandising principle of "Display it and sell it—hide it and keep

it" was stressed as the key to bigger profits for the selling of packaged ice cream and frozen foods through "Clearview" glass top cabinets.

The distributor organizations were told how the cabinets created more "stops" and increased gallonage for merchandisers of ice cream. They were also shown how frozen foods sales volume and profits were increased through the use of better merchandising methods and applied selling plans used in connection with Schaefer equipment.

Through the use of easel sales charts at the meetings the merchandising principles of increasing volume and profits by selling related items to increase the average sale; speeding up stock turnover by selling "two-at-a-time" combinations, and the long profit "luxury" items; controlling and guiding store traffic through proper placement of Clearview cabinets and the featuring of special promotions and spot selling to take full advantage of "impulse buying" were all tied into the selling of the cabinets.

A continuing series of sales meetings built around the theme "An Approach to Profit" is planned for other Schaefer distributor organizations.

'Few Pennies Per Day' Promotion Draws Traffic

BUFFALO — A novel promotion which featured minimum daily payments in terms of cents produced a very good response in the Appliance Center of E. W. Edwards & Son, according to an official of the store.

The promotion was launched with a large newspaper advertisement pointing out that appliances may be purchased for only a few cents a day.

Said the advertisement caption: "Why be a slave to your home, when for just a few pennies a day you can own any of these modern work-saving appliances?"

The payment plan was worked out on the basis of the regular 10% down payment, translated into terms of daily cost.

Casper Dealer Purchases Ritzman Hotpoint Store

CASPER, Wyo.—Walter H. Berlet, proprietor of Berlet's Appliance store here, has purchased Ritzman Hotpoint Store, 128 South Walcott St., from Harry Ritzman and will operate the two stores separately.

Berlet opened his store two years ago after his separation from the armed forces where he served five and one-half years as a major in the armored force. Prior to entering the army he was connected with the wholesale department of the B. F. Goodrich Co. for three years.

The Ritzman store was opened as M & R Appliances on Aug. 1, 1946, by Ritzman and Larry Mount, who later sold his interest in the store to Ritzman.

FOR QUIET PERFORMANCE

on your next job choose a

MILLS

a condensing unit for

every installation



Mills Industries, Incorporated • 4100 Fullerton Avenue • Chicago 39, Illinois

Refrigeration Men!

Add To Your Earning Power With Advanced Technical Training In

Air Conditioning

Use your knowledge of Refrigeration as a stepping stone to the great opportunities in the fast-growing field of Air Conditioning. Understanding of Refrigeration—plus U.E.I. Advanced Training in Air Conditioning can put you in a preferred position to "go places."

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Whiting Adds Foster To Demonstrator Staff

CHICAGO — Increased activity of dealers and distributors in arranging demonstration dinners for the Whiting food freezer is resulting in enlargement of the Whiting demonstration staff. Most recent addition to the staff is Gertrude Foster, who will have charge of Whiting demonstration dinners in Illinois, Indiana, Kentucky, Michigan, and Ohio.

Following graduation from the University of Minnesota with a degree in home economics, Miss Foster spent five years teaching and was an FHA home management supervisor for five more years.

Webb Covers Southwestern Territory for Betz Corp.

HAMMOND, Ind.—Betz Corp. here, manufacturer of commercial coils, announces the appointment of Clyde L. Webb as southwestern territory representative.

Webb comes to Betz with a background of over 20 years experience in the commercial refrigeration field. He served for a period of 10 years as sales engineer and field service supervisor for Kelvinator. Following this, he served for three years as manager of Farr-Webb Co., Houston.

During the war, Webb was with the Refrigeration and Air Conditioning branch of the War Production Board.

In his new position Webb will cover Texas, Oklahoma, Arkansas, Louisiana, and Mississippi with headquarters in Fort Worth.

Utica Dealer Forced To Vacate

UTICA, N. Y.—Burke's Service, 112 North Genesee St., appliance dealer, announces that it is forced to vacate its store premises and will dispose of its entire stock.

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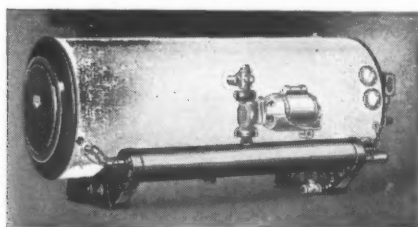
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How To Service Room Air Conditioners (3) Checking & Repairing Refrigeration System

This is the third instalment of a series presenting general service information on room-type air conditioners. Prepared from material supplied by Philco Corp., the data will apply to most makes.

REPLACING COMPRESSOR SHAFT SEAL

When a seal leak occurs and an experienced compressor mechanic is available, it is often desirable to replace the shaft-seal assembly instead of returning the compressor for a complete factory overhaul.

The shaft-seal assembly, shown in Fig. 4, is designed for use only in either of the recently designed Philco compressors, Model R-LG2 and Model R-LG3.

Model R-LG2 is used in Philco air conditioner Models 61-C, CA, CL; 76-C, CA, CL, and 91-C and 9-CA. It is also furnished as a replacement compressor for Models 61-A and 61-B.

Model R-LG3 compressor is used in Philco Model 101-C (water-cooled), and is furnished as a replacement for Models 76-A, 91-A, 76-B, and 91-B.

REMOVING SEAL ASSEMBLY

1. With the necessary panel enclosures removed from the air conditioner, loosen the belt-tension adjusting studs and remove the belt (or belts).

2. Loosen and remove the flywheel clamping bolt; then remove the flywheel.

3. Remove the bearing head (7) and bearing head gasket (6). See Fig. 4. The packing ring (5) will

probably cling to the bearing head when the head is removed from the shaft.

4. The shaft-seal ring (4), shaft-seal collar (3) with neoprene packing ring (2) inside, and leaf spring (1) will all be exposed to view. Remove these parts by slipping them off over the end of the shaft.

The shaft-seal spring (1) rests against the shoulder of the crankshaft, and automatically provides the necessary tension for sealing the shaft.

INSTALLING SEAL ASSEMBLY

1. Clean and oil the crankshaft surface where the assembly is to be installed.

2. Slip the shaft-seal spring (1) over the crankshaft, with the leaves of the spring toward the crankshaft shoulder.

3. Slip the neoprene shaft-seal packing (2) and shaft-seal collar (3) over the shaft. Insert the packing into the collar, and press the collar firmly against the spring. Flush the face of the collar (3) with clean "Freon" compressor oil. Use an oil can—not the fingers.

4. Clean the shaft-seal ring (4), and assemble the shaft-seal ring packing (5) to it; then slip these parts over the shaft with the large diameter of the ring towards the

collar until the ring bears against the collar. Do not use oil on the packing ring (5).

5. Rotate the shaft-seal ring (4) with the fingers, to make sure that the ring adheres to the collar and requires a slight pull to separate it from the collar. This sticking indicates a properly ground fit.

6. Clean the gasket recess in the bearing head, and set the bearing head gasket (6) in place.

7. Clean the machined surfaces of the bearing head, and slip the bearing head carefully over the shaft, making sure that the packing ring (5) enters the recess in the bearing head properly, and without binding.

8. Insert the six cap screws in the bearing head, and draw up carefully, alternating diagonally so that an even pressure is exerted over the entire gasket surface.

9. Replace the flywheel on the crankshaft, and set the clamping bolt in position. Replace the lock washer and tighten the clamping-bolt nut.

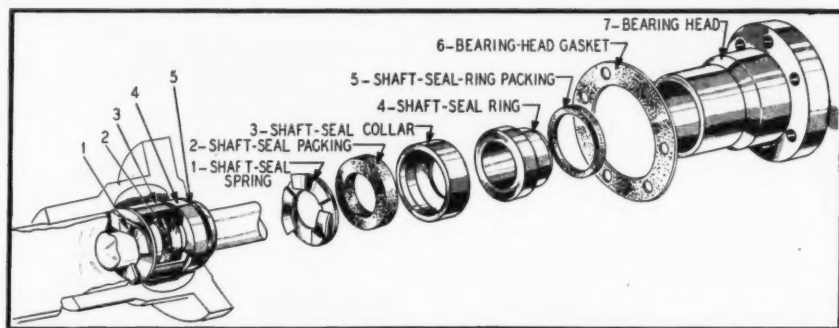
10. Replace the belt (or belts), and adjust for proper tension. Note: With proper tension, a belt should have about a 1/2-in. sag when thumb pressure is applied halfway between the pulley and the flywheel.

11. Evacuate the compressor.

When installing a new shaft-seal assembly or replacement compressor, always be sure to check the compressor for proper oil charge. Compressor Model R-LG2 requires 12 oz. of "Freon" compressor oil. Compressor Model R-LG3 requires 18 oz. of "Freon" compressor oil.

Shut the unit off and immediately close the service discharge valve. Carefully watch the discharge pressure gauge. Any appreciable drop in pressure, other than a normal drop caused by the cooling of the com-

Fig. 4—Exploded View Shows Compressor Shaft-Seal



pressor head, indicates that the head-plate valves are leaking. Repeat the above test to verify the conclusion. If the compressor does not pump to 20 in. or more, or if the compressor valves leak back while the compressor is standing idle, the compressor should be replaced.

To check a compressor for leaks when it is not installed in a unit, proceed as follows:

Close both the suction and discharge service valves by turning the stems clockwise as far as possible. To insure refrigerant pressure in the compressor crankcase and on the seal-bearing face, attach a refrigerant drum to the suction service valve.

When making this connection, install a pressure gauge in the line from the refrigerant drum to the compressor to determine accurately the pressure in the compressor crankcase. Be sure the drum is standing up with its fittings at the top. Test pressures for this purpose should be approximately 100 lbs.

Use a halide torch to check for leaks with this pressure in the crankcase.

LIQUID STRAINER

1. To clean or replace the strainer, follow the procedure given under replacing parts in systems with or without a liquid-line shut-off valve.

2. Loosen and disconnect the fittings in the liquid line that contains the strainer. A liberal quantity of carbon tetrachloride should be used to wash the dirt out of the screen mesh. This can be more speedily accomplished by using a fairly stiff bristled brush to apply carbon tetrachloride to the strainer.

3. When the strainer is clean, re-install it in the line fitting, and re-assemble the flare connection. Follow the procedure given under replacing parts in a system with or without a liquid-line shut-off valve.

COMPRESSOR SERVICE VALVES AND GASKETS

Two service valves connect the refrigerant lines to the compressor. Each is equipped with connection ports for easy installation of gauges. The valves are the back-seating type, which means that when the valve stem is turned all the way counter-clockwise the gauge port is closed to the system; when the valve is turned fully clockwise the refrigerant line is closed. The operating end of the valve stem is sealed by a bonnet and gasket.

Always replace gasket and sealing bonnet after operating a valve, and check for refrigerant leaks. To open

or close a valve, a conventional valve stem wrench is required.

When replacing a service valve, always install a new gasket.

COMPRESSOR DEFECTIVE?

When a compressor is suspected of being defective, a complete analysis should be made of the system before the compressor is replaced. In some instances, the symptoms encountered in servicing an air conditioner may lead the serviceman to suspect the compressor, when actually the trouble is in another section of the system.

Noise and knocking are often attributed to a faulty compressor when the trouble may be a loose compressor flywheel, incorrect belt alignment, air in the system, or a large quantity of oil being pumped through the compressor because of liquid refrigerant in the crankcase.

After making certain that the compressor flywheel is tight on the shaft, that the belt is in perfect alignment and at the proper tension, and that no other trouble exists in the system to cause a noisy or knocking compressor, the compressor should be tested as described in the following text.

CHECKING COMPRESSOR

Check for leaks at the shaft seal and service valves. Check the oil level. If the compressor has not been operating for an extended period and the refrigerant has condensed in the crankcase, testing should not be attempted until the refrigerant has been pumped out.

To pump out the refrigerant operate the compressor for a minimum running period of one hour or until the compressor base becomes warm.

Install a suction gauge at the suction service valve. Start the unit and turn the suction service valve fully clockwise to shut off the suction line from the compressor. If the compressor starts to knock, oil is being pumped through the compressor headplate valves.

The unit should be intermittently operated to avoid pumping oil out of the compressor and into the system. Continue this operation until the compressor runs normally with the suction service valve closed.

Discharge pressures vary when different outside air temperatures are applied to the condenser.

Carefully watch the suction gauge; if the compressor pumps 20 in. or more, the compressor suction valve is functioning properly.

An accurate test of the headplate (Continued on next page)

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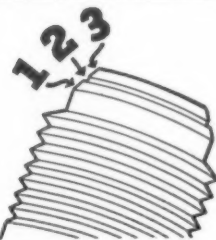
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Additional protection against leakage is provided by extra length pipe threads which are longer than formerly on sizes 1/4" and over. This extra length is especially valuable where reconnection is necessary.

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Room Unit Service-- Fig. 5—Location of Compressor In Window Unit

(Continued from preceding page)

discharge valve can be made as follows: Install a pressure gauge at the discharge service valve; close the liquid-line shut-off valve located beyond the liquid receiver. Turn the unit on and allow it to run until a pressure of at least 100 lbs. is indicated on the discharge pressure gauge.

REPLACING COMPRESSOR

To replace a compressor, proceed as follows:

1. Remove the cabinet and the necessary panels.

2. Install a compound gauge on the suction service valve.

3. Close the suction service valve fully clockwise and start the unit.

4. Stop the unit when the gauge reads between 2 and 5 lbs. Wait a few minutes, and if the pressure builds up, repeat the process until the pressure remains between 2 and 5 lbs. See Fig. 5 for compressor installed in a window model.

5. Turn the discharge service valve fully clockwise.

6. Loosen the belt tension and remove the belt.

7. Remove the flywheel.

8. Remove both suction and discharge service valves from the compressor by taking out the retaining cap screws. Allow the valves to remain attached to the refrigerant lines.

9. Remove the retaining bolts that secure the compressor to the base, and lift the compressor out of the unit.

10. Place the new compressor in position on the base, and install the bolts and nuts which secure the compressor.

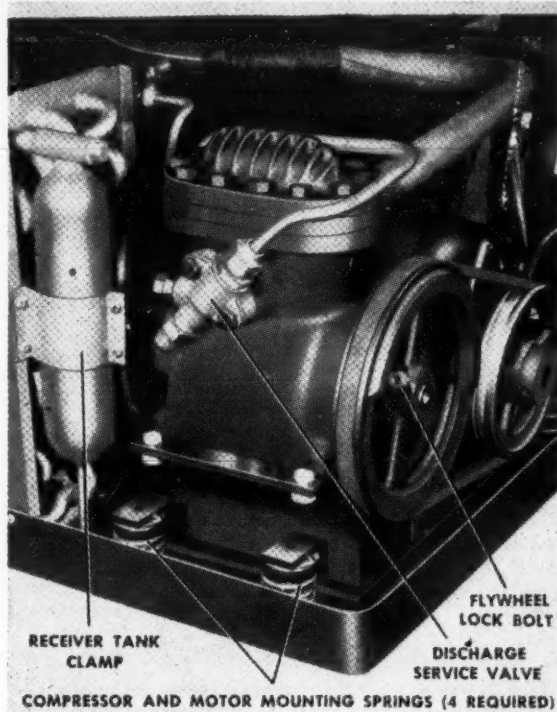
11. Remove the service valve cover plates and connect the original service valves, with their attached lines, to the compressor. Use new gaskets.

12. Install the flywheel and align the belt.

13. To purge the compressor, remove the gauge plug from the discharge service valve; also remove the gauge plug from the suction service valve and connect a compound gauge. With both valves still closed (fully clockwise) start the unit and pump a 20-in. vacuum; then stop the unit.

Crack the suction service valve until a pressure of 10 to 15 lbs. is built up, close the valve and again

Location of the compressor and some other parts of a typical window-type room air conditioner is shown at right. This particular model is made by Philco Corp.



pump a vacuum of 20 in. Replace the discharge gauge plug and turn both service valves fully counterclockwise. Remove the compound gauge and replace the plug.

14. Check for leaks.

15. Replace the panels.

16. Check the operating characteristics.

When repairs are necessary, the complete compressor, with valve opening covers attached, should be returned through the proper channels for factory-rebuild service. Tag the compressor for proper identification. Pack the compressor in a box or the crate in which the replacement compressor was received.

The new compressor is shipped with a full oil charge. Leakage of oil from the system can be detected by the presence of oil in the bottom pan of the air conditioner. If a considerable amount of oil has been lost, it may be assumed that at least some of the refrigerant has escaped. After the new compressor is installed with the complete oil charge as received, a check should be made to determine whether or not additional refrigerant is required in the system.

If a considerable amount of oil is

compressor crankcase adjacent to the rear bearing.

To inspect the oil level, close the suction and discharge service valves and purge the gas out of the compressor by opening the discharge gauge connection, then slowly remove the oil-filling plug.

If the plug is opened too rapidly, a foaming mixture of oil and "Freon-12" will ooze out. However, this is not a sure indication that the crankcase is properly filled. To be on the safe side, add oil until it overflows.

The best time to check the oil level is when the compressor has stopped, after operating for a minimum of one-half hour. Use a funnel with a bent spout, an oil can with a flexible tube, or a hand oil pump. If the filling is done quickly, air will be kept from entering the crankcase by the escape of "Freon-12" vapor. Use "Freon" compressor oil of good quality only.

EVAPORATOR

It is necessary that the evaporator be kept clean and free of dirt and dust collections, so that the air path through the tubes and fins is unrestricted. If the evaporator is damaged or leaking to such an extent that it cannot be successfully repaired, it should be replaced by a new assembly.

If repairs or replacement are necessary, the complete coil assembly must be removed from the system. Disconnect the refrigerant lines, remove the evaporator retaining bolts (if any), and remove the evaporator.

When replacing evaporator coils, condenser coils, receiver-tank assemblies, or certain refrigerant connecting lines it is possible that tubing connections may be joined together

by silver brazing or with flare nut fittings. If the connections are brazed, prepare the connecting tubes and braze.

Install the new evaporator, secure it in place and connect the refrigerant lines. After all connections are made, evacuate the system, recharge with refrigerant, and test for leaks.

CONDENSER

Air-cooled condensers, like the evaporator, should be kept free from dust, lint, and other foreign material, because any material around the tubes and fins reduces airflow. Dirt in the condenser air scroll slot opening, dirt encrusted fan blades, or a slipping condenser fan assembly reduces heat radiation and increases the pressure of the refrigerant in the high side of the system.

Check the condenser fan, making certain it is securely fastened to the motor shaft. Dirt may be brushed or blown out of an installed condenser.

If the condenser develops a leak, or must be removed for some other cause, purge the entire system. Replace the condenser and tighten all connectors or make up brazed connectors as required. Evacuate the entire system and recharge with refrigerant. Check the system for leaks.

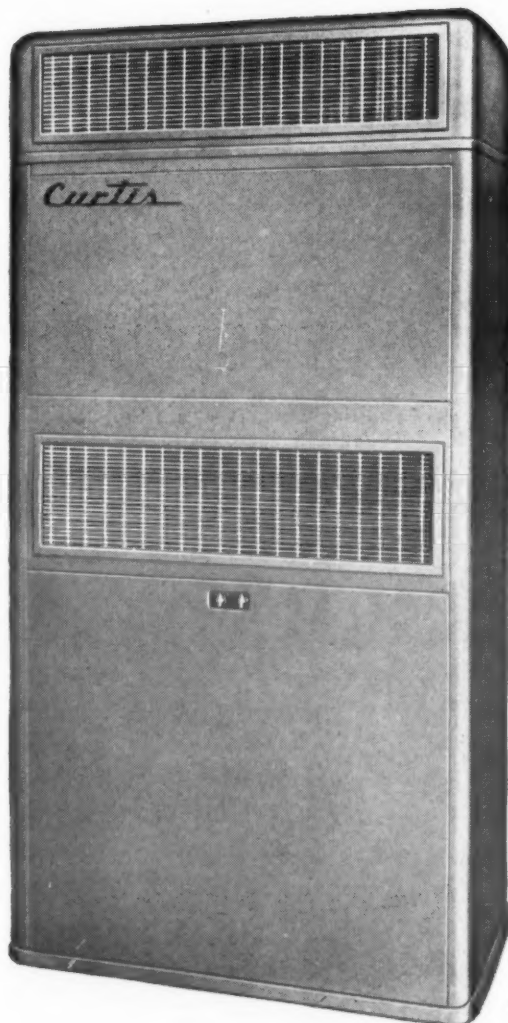
Be sure to replace all insulating sections in the same relative positions they occupied on the original condenser coil assembly.

Water-cooled condensers require a minimum of service. If the condenser water lines become clogged or the condenser develops either a water or refrigerant leak, its removal for service repairs or replacement will be necessary.

(To Be Continued)

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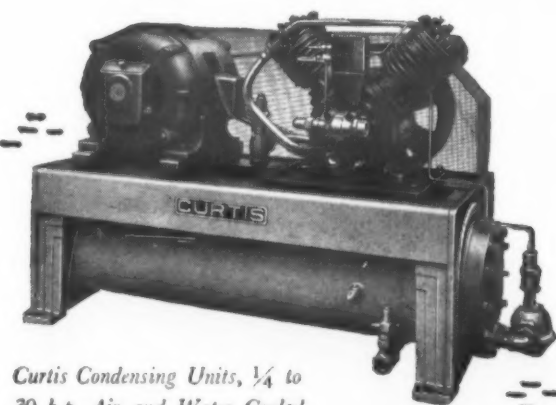


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Important Questions

...IN SELECTING A DRIER

1. Does the material dry the refrigerant below the corrosion limits when placed in the liquid line? In the suction (vapor) line?
2. Does the material dry the refrigerant below the limits for ice formation with methyl chloride and the "Freon" refrigerants?
3. Does the material accomplish the drying in one passage of the refrigerant, or is it slow, i.e., requires several passages?
4. Does the material deteriorate in physical character in handling or when it removes water from the refrigerant?
5. Does the oil affect the drier adversely?
6. Does the drier corrode?



DRYING POWER OF VARIOUS MATERIALS

Drier	Refrigerant	Liquid or Vapor	Max. Residual Water Concentration After Passage Through Drier	
			.95% Initial Water Concentration	.02% Initial Water Concentration
ACTIVATED ALUMINA	Sulfur Dioxide	L	.15	.005
	Methyl Chloride	V	.01	.006
	Chloride	V	.01	.006
SILICA GEL	Sulfur Dioxide	L	.15	.006
	Methyl Chloride	V	.01	.004
	Chloride	V	.01	.004
DRIERITE (Calcium Sulfate)	Sulfur Dioxide	L	.15	.009
	Methyl Chloride	V	.08	.003
	Chloride	V	.05	.003
CALCIUM CHLORIDE CaCl ₂	Sulfur Dioxide	L	.09	.013
	Methyl Chloride	V	.03	.005
	Chloride	V	.10	.005
CALCIUM OXIDE CaO	Sulfur Dioxide	L	.20	—
	Methyl Chloride	V	.15	—
	Chloride	V	.08	—
BARIUM OXIDE BaO	Sulfur Dioxide	L	.20	.017
	Methyl Chloride	V	.15	.006
	Chloride	V	.05	.006

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Ebco's Pakistan Distributor Visits U. S.



M. Rafi Butt (right), of Ghulam Nabi Corp., Ltd., Lahore, Pakistan, who was recently appointed by The Ebco Mfg. Co. as the distributor for Oasis electric drinking water coolers in his country, discusses the mechanical details of a cutaway model with H. P. Michener, of J. H. Latham Co., New York City, exclusive export distributor of Oasis coolers.

Ebco Appoints Industrialist As Distributor In Pakistan

COLUMBUS, Ohio—Appointment of M. Rafi Butt, of Lahore, Pakistan, as the distributor for Oasis electric drinking water coolers in his country was announced by A. R. Benua, president of The Ebco Mfg. Co.

Butt, who will handle the sale of Oasis coolers through his company,

Ghulam Nabi Corp., Ltd., was described as a prominent industrialist and manufacturer in Pakistan. On his recent third trip to the United States, he served as his country's delegate to the International Labor Conference in San Francisco.

While here, Butt said he anticipates a considerable advancement in the utilization of manufactured goods in Pakistan once the many problems resulting from the division of India have been cleared up.

Peru Ships Frozen Swordfish

LIMA, Peru—A shipment of 50 tons of frozen swordfish to New York was made in March. It was said to be the first commercial shipment of this type of fish from Peru.

Most Industry Exports In May Below April Levels; Vacuum Shipments Rise

WASHINGTON, D. C.—U. S. exports of air conditioning and refrigerating equipment and electric domestic refrigerators, washing machines, and cooking ranges during May dropped below April levels but those of domestic vacuum cleaners were substantially higher, Bureau of the Census figures show.

The air conditioning and refrigerating equipment and parts shipped abroad in May had a value of \$5,222,645, compared with \$5,794,510 during the preceding month.

May exports of electric household refrigerators totaled 28,172 units valued at \$4,124,358. The April total was 30,126 units valued at \$4,496,525. Parts exported in May had a value of \$616,718, against \$736,674 a month earlier.

A total of 1,734 non-electric mechanical refrigerators valued at \$392,402 were exported in May, compared with 1,443 valued at \$298,294 in April. Exports of ice refrigerators jumped from 644, valued at \$29,818, in April to 1,318, valued at \$35,136, in May.

Electric household washing machines shipped abroad in May numbered 6,806 and had a value of \$766,610. This compared with 8,006 washers valued at \$899,823 during April.

Electric washing machine parts exported in May were valued at \$109,568, against \$172,017 in April.

May exports of domestic vacuum cleaners totaled 12,538 with a value of \$466,490, against 5,042 valued at \$197,443 in April.

Exported domestic electric ranges in May totaled 1,091 units valued at \$181,925. During April, 1,595 units valued at \$191,771 were sent abroad.

Estimated Effective Demand for Electrical Appliances In Latin America

(value in U. S. dollars)

Countries of Destination	Electric Household Refrigerators	Electric Commercial Refrigerators	Electric Refrigerator Parts	Mechanical Non-Electric Refrigerators
Argentina*	\$ 500,000	\$ 200,000	\$ 600,000	\$ 100,000
Bolivia	25,000	1,500	1,500	5,000
Brazil†	2,500,000	150,000	300,000	7,500
Chile*	400,000	15,000	100,000	50,000
Colombia	600,000	100,000	60,000	100,000
Costa Rica	60,000	20,000	10,000	8,000
Cuba‡	800,000	110,000	150,000	60,000
Dominican Republic	35,000	10,000	3,500	2,500
Ecuador	40,000	2,000	6,000	15,000
Guatemala	60,000	25,000	5,000	10,000
Haiti	20,000	2,000	3,000	9,000
Honduras	25,000	3,000	5,000	10,000
Mexico†	2,000,000	125,000	200,000	80,000
Nicaragua	38,000	4,000	1,500	1,000
Panama	200,000	80,000	65,000	20,000
Paraguay	50,000	5,000	4,000	10,000
Peru	200,000	7,500	25,000	7,500
El Salvador	60,000	20,000	6,000	10,000
Uruguay	150,000	15,000	40,000	12,000
Venezuela‡	825,000	100,000	60,000	150,000
Total	\$8,588,000	\$ 995,000	\$1,645,000	\$ 667,500

*Fair prospect; †good outlook; ‡best export outlook.



Latin American Demand for Refrigerators Compared with Imports In Prewar Period

By Eugene Hes, International Market Analyst

About one year ago the demand for commercial and household refrigeration equipment from the other Americas was of such dimensions that the American manufacturer was forced to ask himself: what shall we export with the view to securing interesting markets in the future? At the same time it was essential not to neglect the home market, clamoring for supplies. In the meantime the picture has somewhat changed.

Today the South American countries are guarding their dollar exchange rather carefully and apparently unbounded sales possibilities have given way to a more sober appraisal. The shift of the point of gravity from formerly rather rich

South American countries to a different group has already been outlined.

It is therefore probably a sound move to throw some light upon the actual business done in the pre-war period and to compare this business with the present demand, for which estimates have been worked out by the United States Department of Commerce.

Exports of electrical appliances from the United States to Latin America from 1937 to 1941 total \$52 million, or an annual average of over \$10 million. Of this amount exports of refrigeration equipment of all types accounted for 60.5%. The two typical years 1937 and 1941 showed the following picture:

United States Exports of Refrigeration Equipment to Latin America

Commodity	1937 Quantity (units)	1937 Value (dollars)	1941 Quantity (units)	1941 Value (dollars)
Electric household refrigerators	46,402	3,803,000	70,744	5,964,000
Electric commercial refrigerators	5,639	619,000	6,236	896,000
Mechanical household and commercial refrigerators	5,839	458,000	3,344	394,000
Electric household and commercial parts	.....	1,008,000	.....	1,177,000

The most important Latin American market for electrical appliances made in the United States was Brazil. That country bought for nearly \$10 million worth, or nearly 20% of the total American exports over the quoted period of five years. Mexico was second with over \$8 million. Argentina was third with \$6,400,000.

The United States exported electrical appliances in that period—1937 to 1941—to Cuba, \$6 million; Venezuela, \$5.6 million; Colombia, \$4.8 million; Panama including Canal Zone, \$3.2 million; Chile, \$1.8 million; and Peru, \$1.7 million. As shown above, the refrigeration equipment may be estimated to represent over one half of the above figures.

The accompanying estimate of effective demand for refrigeration equipment in Latin America (see table at left) is based upon a more or less normal development. The figures may safely be regarded as a sound basis for further calculations, even if some late trends, as outlined above, will print their mark on actual business done or to be done.

One should not forget to include Puerto Rico into one's sales plans. It certainly is a young and small but energetic member of the upcoming Latin American countries.

Before closing this outlook it may be useful to give one practical hint for our engineers planning the product:

Electric current characteristics in all the Latin American republics fall into two general classes, 110 and 220 volts, 60 and 50 cycles. There are numerous exceptions however, and when a particular market is under consideration it is advisable for the exporter to ascertain the exact characteristics.

This information is found in *World Electrical Markets*, Bulletin No. 135, entitled "Principal Lighting Voltages in Foreign Countries," a copy of which can be obtained free from the Transportation and Communication Division, Office of International Trade, Department of Commerce, Washington 25, D. C.

Production In New Zealand

WASHINGTON, D. C.—In New Zealand, there are 12 manufacturing or assembling units engaged in producing domestic refrigerators and 10 firms make domestic washing machines, according to a report by the U. S. Department of Commerce. An estimated 10,000 domestic refrigerators and 15,000 washers were scheduled to be produced in 1947.

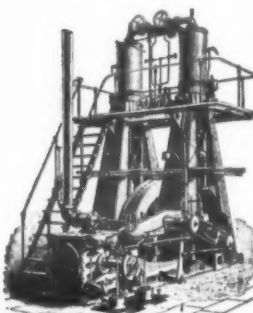


Hudspohl Breweries Use



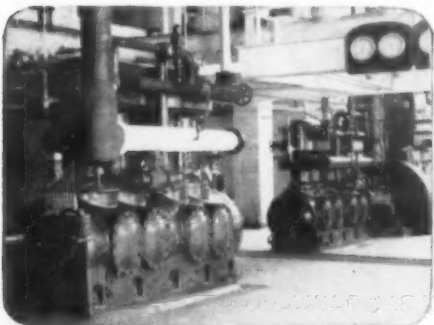
Refrigeration
60 YEARS!

Frick ammonia compressors as built in the Eighties and Nineties were primitive machines by today's standards. But they were remarkably dependable: one of those installed in the Hudspohl Breweries at Cincinnati ran 57 years, another 52, and two others 45!



Old and New Frick Refrigerating Machines at Hudspohl Breweries

Naturally, Hudspohls believe in Frick Refrigeration. Their fine new engine room contains the two big Frick 4-cylinder machines illustrated. You'll get the last word in reliability when you specify Frick Refrigeration.



DEPENDABLE REFRIGERATION SINCE 1887
FRICK CO.
WAYNESBORO, PENNA. U.S.A.

MIRACOOOL . . . the WALK-IN COOLER!

- Made for service
- Installed quick and easy
- Reach in doors
- Ample display and storage space
- Constructed of the finest material
- Outstanding in its field
- Original in many aspects
- Lasts longer—looks better



Deluxe Florist Cooler

Spell out MIRACOOOL and you're spelling the greatest name in Walk-In Coolers. Each cooler is the product of over a quarter of a century of manufacturing experience. MIRACOOOL truly gives you perfection in performance.

Write today for illustrated folder and price list of our complete line of Walk-In Coolers.

The CLEVELAND REFRIGERATOR CO.
2901 EAST 65th STREET CLEVELAND 4 OHIO
Manufacturers of Custom Built Refrigerators Over A Quarter Century



ROGERS

BEVERAGE COOLERS

with disappearing lids of stainless steel

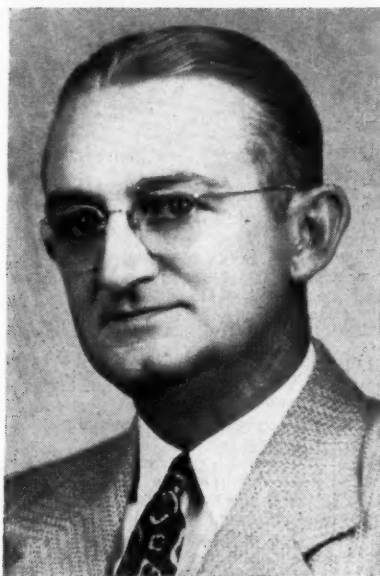
39" high; 30" wide;
4, 6, 8, 10, or 12' long.

Immediate Delivery!

W. ALLEN **ROGERS** Industries
BOX 272-AC DEMOPOLIS, ALA.

Walk-in Coolers
Beverage Coolers
Ice Cream Cabinets
Ice Cream Push Carts
Ice Cream Shoulder Boxes

Heads Refrigerant Firm



F. J. HOOD

Hood Is Elected--

(Concluded from Page 1, Column 4) office in 1928. He worked in sales for eight years, returning to Marinette in 1936. In 1938 he was elected secretary and treasurer of the company. He was promoted to vice president in 1945.

Ansul's new chief executive is a past president of Refrigeration Equipment Manufacturers Association. He is also a member of the American Society of Refrigerating Engineers and Refrigeration Service Engineers Society.

Other officers elected by Ansul are R. C. Hood, vice president; H. C. Higley, secretary; J. F. Asell, treasurer; and S. R. Holmquist, controller and assistant treasurer.

Carrier Sales--

(Concluded from Page 1, Column 2) year. The latter figure had included three months' carry-back tax credits and income tax for nine months.

New orders booked amounted to \$50,209,802, compared with \$40,445,390 booked in the 1947 period. On July 31, 1948, Carrier's unfilled orders totaled \$20,908,610 compared with \$26,433,327 a year ago.

Carrier's reduction in backlogs, despite increased new business, was due largely to improved production operations and more normal ordering practices by dealers and distributors, declared Cloud Wampler, president.

Completed contracts and sales were almost identical with the volume of new orders booked during the first nine months of the current fiscal year, he added.

Domestic orders have been substantially greater in the current year, although foreign and marine orders fell below the preceding year, he said.

As of July 31, Carrier's net working capital was \$16,047,175. Cash on hand totaled \$3,791,011. Corresponding figures for July 31, 1947, were \$14,133,808 and \$2,523,893.

Gibson In Changeover

GREENVILLE, Mich.—Gibson Refrigerator Co. here has announced that it is laying off production workers for approximately 30 days for a changeover to new models.

Northwest Dealers Ask More Education To Up Freezer Sales

SPOKANE, Wash.—Current home freezer sales are not satisfactory but the appliance is worth promoting extensively now. And the way to do it is through more public education, more sales training, and more manufacturer-distributor advertising.

Those appeared to be the sentiments of electrical appliance dealers in this area as expressed in replies to a "5-Minute Poll" recently conducted by the Inland Empire Electrical Dealers Association.

Seventy-four per cent of the dealers considered present sales unsatisfactory. But 81% agreed that freezers are worth promoting extensively now.

Asked how freezer sales could be improved, 85% called for more public education, 72% wanted more sales training, 58% wanted more manufacturer-distributor advertising, 50% asked for lower prices, 23% thought larger dealer margins would help, and one vote each was cast for better freezers and more work by dealers.

IEEDA, in announcing results of the poll, pointed out the efforts that are being made locally to give freezer sales the desired boost.

It noted that in the Spokane Consumer Bureau's fall panel activities, the home freezer is the first item scheduled for study. In preparation for this, one bureau member will do freezing experiments in her own home during September and October to acquire information of interest to other members.

Then, early in October, the bureau will sponsor a public meeting on the use of freezers and methods of preparing foods for freezing. Both IEEDA and the Spokane Federation of Women's Organizations are backing the event.

The meeting will feature demonstrations and talks by home economists, a panel discussion by consumers on the merits of home freezers, and a report by the experimenting Consumer Bureau member.

Another public education project, sponsored by Spokane freezer distributors, will be a "Freezer Week" scheduled for Sept. 27 to Oct. 2. It is timed to coincide with the opening of hunting season and the closing of the canning season.

Sales training, the association pointed out, has already been undertaken by the Washington Water Power Co. and plans for more training are being laid by distributors and the association itself.

In answer to another question asked in the "5-Minute Poll," the dealers overwhelmingly approved association support for state legislation on their behalf in both Washington and Idaho.

The poll showed 93% in favor of legislation that would require Underwriters' Laboratories or similar approval of merchandise sold in these states; 89% in favor of legislation to prohibit the sale of appliances from which serial numbers have been removed; and 78% in favor of requiring a permit, with a very small registration fee, to identify those retailing electrical goods.

WAA Lifts Priorities On Many Surplus Items

WASHINGTON, D. C.—Under a new policy announced last week by the War Assets Administration, priorities were lifted on approximately \$400,000,000 worth of surplus goods.

Among the variety of goods now being offered priority-free "to all comers" are electronic and radio equipment, machinery, and some cars and trucks, according to the agency.

The WAA said priorities will be retained on about \$4,000,000,000 worth of surplus war plants and other real property. The requirements of the Armed Services will remain paramount, it added.

Previously, Federal agencies, veterans, state and local governments, and non-profit hospitals and schools were granted preferences.

Miller Heads Philco Service Parts Design

PHILADELPHIA — Mitchell P. Miller, who has had 25 years of experience with the company, has been appointed manager of product design for the Service & Parts Division of Philco Corp., reports James M. Skinner, Jr., vice president of that division.

Miller joined Philco in 1923 and was employed in the factory organization until 1931, when the company began manufacturing automobile radios and he was put in charge of auto radio installations and servicing. Seven years later, he was appointed service manager for auto radio.

Directs Super-Cold Co.



BERNIE GLAZER

Servel Reports Gains In Sales & Profits

EVANSVILLE, Ind.—Net profit (after charges and taxes) of \$3,594,661, or \$1.97 cents a common share (after preferred dividend requirements), on net sales of \$54,136,500 was reported by Servel, Inc., for the nine months ended July 31.

This compares with a net profit of \$897,396, and net sales of \$39,004,600 for the like 1947 period.

Servel also reported a net profit of \$1,609,204 (after deducting \$500,000 for special reserves and other charges), or 90 cents a share, for the quarter ended July 31. Net profit for the corresponding quarter of 1947 was \$973,107, or 52 cents a share.

Congressional Group Plans To Investigate Electrical Workers

NEW YORK CITY—Congressional investigation of the United Electrical, Radio, and Machine Workers of America (CIO) to determine if that union is or has been dominated by Communists was scheduled to begin last Thursday.

Representative Charles J. Kersten, Wisconsin Republican and chairman of a subcommittee of the House Labor committee, announced his plans for the investigation Aug. 30.

Other members of the investigating committee are Representatives John F. Kennedy, Massachusetts Democrat, and Carol Kearns, Pennsylvania Republican.

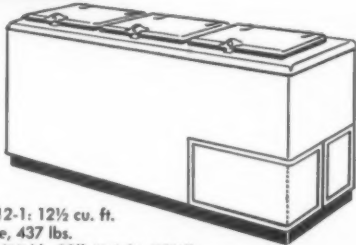
Kersten asserted that his subcommittee was "not trying to break unions, but only to investigate and expose charges of Communist domination in the labor movement." He added that its only aim was to get the facts, feeling sure that when union members knew them they would act "in America's best interests."

Kersten declared that the U-E, through its 400,000 members, "controls the labor policy of employees in the most strategic industries of our American economy." He cited its potential influence in the manufacture of defense items.

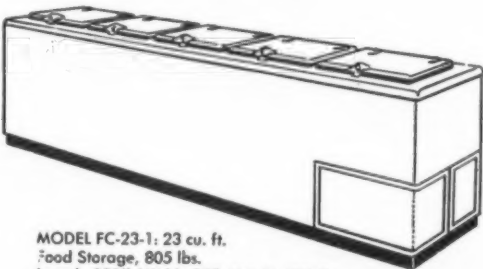
He asserted that testimony by Albert J. Fitzgerald, president of the union, and James B. Carey, a former president but now secretary-treasurer of the CIO, will determine the course of investigation.

BTC FOOD FREEZERS

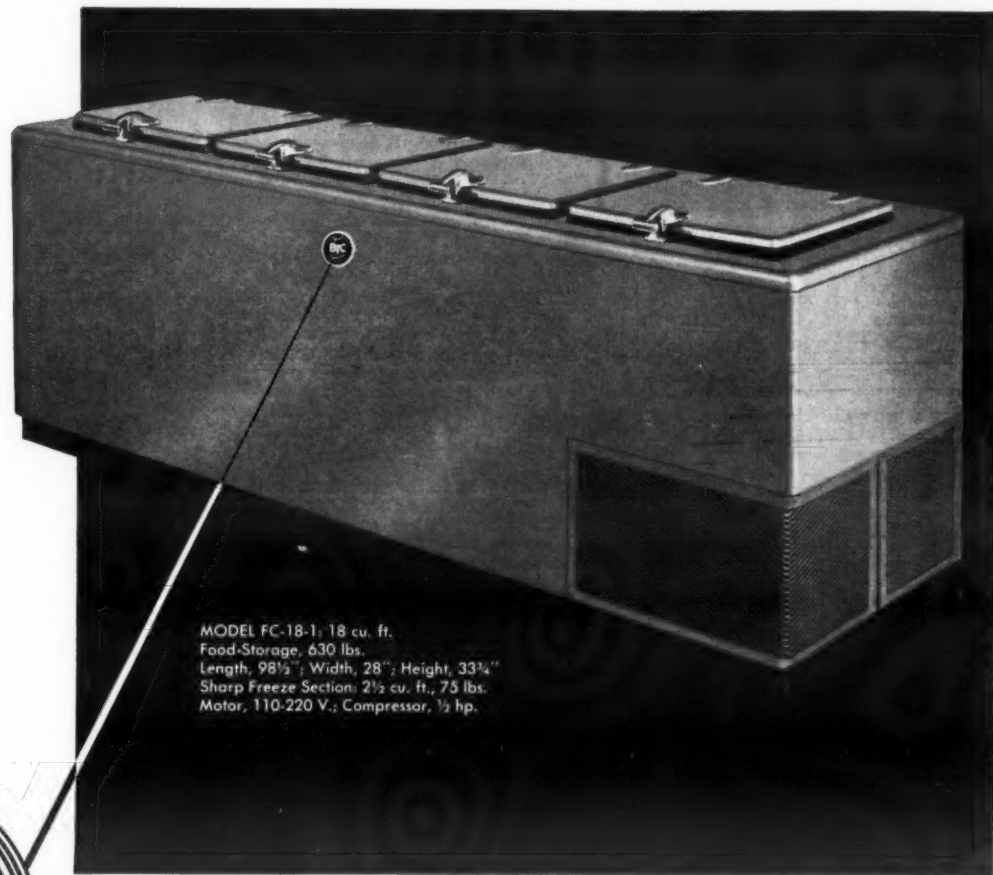
Built for Customer Satisfaction



MODEL FC-12-1: 12½ cu. ft.
Food Storage, 437 lbs.
Length, 76"; Width, 28"; Height, 33½"
Sharp Freeze Section: 2½ cu. ft., 75 lbs.
Motor, 110-120 V.; Compressor, ½ hp.



MODEL FC-23-1: 23 cu. ft.
Food Storage, 805 lbs.
Length, 121"; Width, 28"; Height, 33½"
Sharp Freeze Section: 2½ cu. ft., 75 lbs.
Motor, 110-120 V.; Compressor, ½ hp.



MODEL FC-18-1: 18 cu. ft.
Food Storage, 630 lbs.
Length, 98½"; Width, 28"; Height, 33½"
Sharp Freeze Section: 2½ cu. ft., 75 lbs.
Motor, 110-120 V.; Compressor, ½ hp.

The way to win sales is to sell a food freezer soundly engineered for exacting low-temperature performance. BTC Food Freezers have all the essentials for quality food freezing — rapid freezing, zero storage, economical operation, and lasting service. Inside and out, the BTC Food Freezer is built for customer satisfaction with—

Separate Sharp Freeze Section — prime surface plates on all four sides and bottom for rapid contact freezing.

Independent Storage Compartment — completely lined with frigid wall (Cross-Flow) evaporator plates; multiple, individual lids easier to handle and more efficient than a large, single lid.

Extra Compressor Capacity — cannot be overloaded; runs less than 6 hours out of 24; maintains frozen foods at zero storage and permits rapid freezing of new foods.

Solidly-Built Cabinet — strong 16 gauge steel, bonderized to prevent rusting and finished in oven-baked enamel; vapor-sealed insulation, sidewalls of three layers of fiberglass and bottom of 5" vegetable cork board.

You won't regret selling BTC Food Freezers to your customers. Write for information on the profitable BTC franchise... A complete line of food freezers and display cabinets plus helpful advertising and point-of-purchase material backed by a manufacturer established more than 100 years.

GENERAL MANAGER

Wanted for one of our clients—a well established company with an excellent national reputation. Man selected must have demonstrated general executive ability, be a graduate engineer with manufacturing experience in air conditioning, refrigeration, compressors, or related line. Base compensation 18 to 20,000 plus profit sharing. Replies confidential. Full details to

George Fry & Associates

Management Consultants

135 S. La Salle St., Chicago 3, Ill.

Superior

VALVES, FITTINGS and ACCESSORIES

For All

Refrigeration and Air Conditioning Systems

Superior Valve and Fittings Co. Pittsburgh 20, PENNA.

FASHIONED FOR FUNCTIONING

Even the handsome, engineered good looks of Larkin refrigeration products contribute to their fine performance. The originator of the Cross Fin Coil also offers you matchless quality in Air Conditioning Units—Evaporative Condensers—Instantaneous Water Coolers—Humi-Temp Forced Convection Units—Bare Tube and Zinc Fused Steel Plate Coils—and complete equipment for commercial and industrial refrigeration.



LARKIN COILS

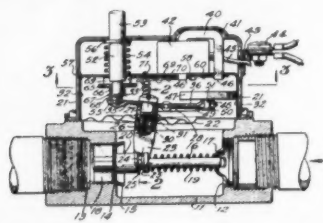
519 MEMORIAL DRIVE • S.E. ATLANTA • GEORGIA

THE BREWER-TITCHENER CORPORATION
BINGHAMTON, N. Y.

PATENTS

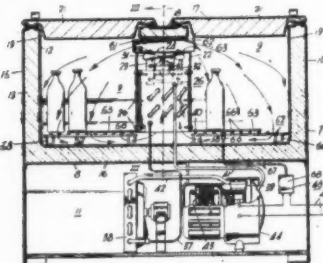
Week of June 8

2,442,877. FLUID CONTROL VALVE. William A. Ray, Los Angeles, Calif., assignor to General Controls Co., a corporation. Original application Feb. 13, 1941, Serial No. 378,756, now Patent No. 2,354,704, dated Aug. 1, 1944. Divided and this application May 22, 1944, Serial No. 536,699. 5 Claims. (Cl. 137-139.)



1. In a control device: means, including a flexible diaphragm, defining a chamber; a rockable lever member having a main portion disposed in a plane substantially parallel to that of said diaphragm and at the side of the diaphragm away from said chamber, the ends of said main portion extending to opposite margins of the diaphragm and being pivoted in the plane of the diaphragm; said lever member having an arm-portion extending generally at right-angles to said main portion from a point intermediate the ends thereof, said arm-portion being secured to said diaphragm and extending therethrough; and condition-controlling means in said chamber and operable by said arm-portion.

2,442,882. BOTTLE COOLING APPARATUS. Robert H. Tull, Elio C. Tanner, and William Ardito, Springfield, Mass., assignors to Westinghouse Electric Corp., East Pittsburgh, Pa., a corporation of Pennsylvania. Application March 3, 1942, Serial No. 433,164. 4 Claims. (Cl. 62-102.)

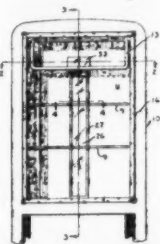


1. In a dry cooler for packaged beverages, the combination of an insulated cabinet having two side and two end walls, a bottom wall, and a top wall normally closed by a movable closure member, a cooling unit in said cabinet and spaced from the top wall and from each of said end walls and extending substantially from one side wall to the other to define a storage space between said cooling unit and each of said end walls, said cooling unit having vertical air passages therein, a fan for circulating air upwardly through the air passages of the cooling unit, a deflector disposed above the cooling unit and spaced from the top wall of the cabinet, said deflector being formed with downwardly-curved outer ends to direct the air passing upwardly through the cooling unit toward each of the end walls and away from the top wall, and a substantially imperforate platform in each of said storage spaces spaced from the bottom wall and the end walls of the cabinet, each platform having edge portions adjacent the cooling unit and the side walls of the cabinet, the vertical air passages in the cooling unit communicating with the space below the platform, whereby the air in said cabinet may be circulated upwardly through said cooling unit by said fan and may be divided into two air streams each of which may flow diagonally downwardly through one of said storage spaces and then underneath the platform to the cooling unit.

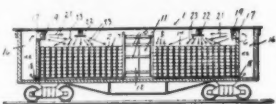
2,442,921. REFRIGERATOR CABINET. Earl D. Drake, Greenville, Mich., assignor to Gibson Refrigerator Co., Greenville, Mich., a corporation of Michigan. Application April 19, 1944, Serial No. 531,752. 3 Claims. (Cl. 240-4.)

3. A refrigerator comprising a liner defining a food storage chamber, said liner having a vertically elongated opening in a wall thereof, said opening being defined by laterally outwardly extending flanges, a reflector located exteriorly of said liner and attached to said flanges, a plurality of clip members secured to said flanges, a light transmitting window having a perimetral frame provided with

means cooperating with said clips to detachably connect said window to said liner, and a source of light within said reflector.

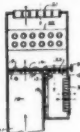


2,442,932. METHOD OF AND APPARATUS FOR PRE-COOLING LOADED CARS. Peter Nalbandian, Fresno, Calif., assignor to Improved Carloading Co., Fresno, Calif., a copartnership composed of Peter Nalbandian and D. D. Byrnes. Application March 19, 1945, Serial No. 583,517. 7 Claims. (Cl. 62-24.)



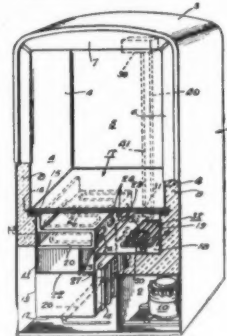
1. The method of precooling packaged perishable goods in a car that comprises the steps of arranging the packages of such goods in spaced stacks providing vertical passageways between stacks, then moving a stream of cold air laterally over the upper ends of said stacks and intercepting such stream by a downward blast of air from above said stream and passageways for causing cold air from said stream to move downwardly into said passageways.

2,442,963. AIR DISTRIBUTING UNIT. Henry R. Sewell, Norwell, and Robert T. Palmer, Sharon, Mass., assignors, by mesne assignments, to Westinghouse Electric Corp., a corporation of Pennsylvania. Application March 31, 1945, Serial No. 585,890. 2 Claims. (Cl. 98-38.)



1. An air distributing unit having an upper opening and a lower opening; a first ejector nozzle placed to discharge towards said upper opening; a second ejector nozzle placed to discharge towards said lower opening; means for directing conditioned air supplied from a central source, into said nozzles, and means for rendering said first nozzle ineffective and said second nozzle effective, whereby the flow of conditioned air through said second nozzle induces the flow of recirculated air through said upper opening into said unit, and causes the mixed recirculated and conditioned air to be discharged through said lower opening, and alternatively rendering said first nozzle effective and said second nozzle ineffective, whereby the flow of conditioned air through said first nozzle induces the flow of recirculated air through said lower opening into said unit, and causes the mixed recirculated and conditioned air to be discharged through said upper opening.

2,442,978. REFRIGERATION APPARATUS HAVING FROST LOCALIZING MEANS. Welton Paul Jones, Rydal, Pa., assignor to Philco Corp., Philadelphia, Pa., a corporation of Pennsylvania. Application March 17, 1944, Serial No. 526,951. 4 Claims. (Cl. 62-103.)

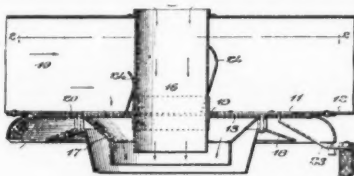


1. In a refrigerator having an enclosed compartment, main evaporator means arranged within said compartment and adapted to operate at sub-freezing temperatures to cool said compartment, auxiliary frost-collecting evaporator means in said compartment and adapted to operate at the lowest temperature prevailing in the refrigerator, said compartment having a metallic wall conductively connected with the main evaporator and extending into proximity to the auxiliary evaporator, and insulating means adapted

to prevent substantial heat exchange between said auxiliary evaporator means and the said wall structure.

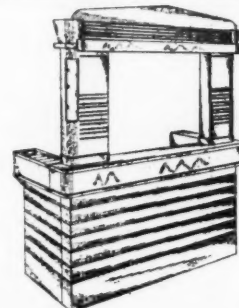
2,443,071. AIR FLOW CONTROL VALVE. Friedrich Honerkamp and Franz J. Kurth, New York, N. Y., assignors to Anemostat Corp. of America, New York, N. Y.

2. Valve means comprising a pair of elements one of which is rotatable rela-



tive to the other, each of said elements having two annular rows of openings therein for alignment and disalignment, respectively, by rotation of said rotatable element relative to the other element, the openings of each row in each element being of angular lengths and being angularly spaced so that the openings of either row may be fully aligned and the openings of the other row simultaneously fully disaligned, so that the openings of both rows may be partly aligned simultaneously, so that the openings of both rows may be simultaneously fully disaligned, and so that the openings of one row may be completely disaligned and the openings of the other row simultaneously fully or partly aligned.

149,872. DESIGN FOR AN ICE CREAM DISPENSING UNIT. William M. Harris,



Greenwich, Conn., assignor to National Dairy Products Corp., New York, N. Y., a corporation of Delaware. Application May 24, 1947, Serial No. 139,259. Term of patent 14 years. (Cl. D80-2.)

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$2.50 per insertion 50 words or under. 5¢ ea. additional word.

RATES for all other classifications \$5.00 per insertion 50 words or under. 10¢ ea. additional word.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

POSITIONS WANTED

AVAILABLE ON 30 day notice—Young commercial refrigeration engineer with pleasing personality capable of handling service department, either locally or nationally, or field representative for manufacturer. Wide field experience makes up for lack of engineering degree. Desires position where ability and aggressiveness brings advancements and compensations. Write BOX 2913, Air Conditioning & Refrigeration News.

SERVICE-INSTALLATION manager, oil heating and air conditioning, desires change. Former national concern field engineer. Age 34, married, small family. Good education. Experienced survey, estimate, draftsman, sales, layout, records, stock. Can assume full responsibility. Minimum salary expected \$5800. Living quarters must be available. BOX 2928, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

SERVICE MANAGER: excellent opportunity with old established firm for man of highest experience on small and major equipment. Able to properly organize service department and sell service and over-all maintenance contracts. Carrier experience preferred. Give full information in first letter. Salary expected. BELCHER INDUSTRIES, INC., Miami, Florida.

SALESMEN: AIR conditioning, commercial refrigeration, ice cream and custard freezers. Top national lines. Men interested in over \$10,000 annually. DRESCO REFRIGERATION COMPANY, 4404 Woodward Avenue, Detroit 1, Michigan.

WANTED MANUFACTURER'S representative for air conditioning firm selling to dealers since 1937. Commission and bonus. Territory open in middle-west, south and southwest. TEMP-CONTROL, INC., 208 E. State St., Peoria 2, Illinois.

SALES ENGINEER—Prominent manufacturer of complete line of nationally known air conditioning equipment has position for qualified sales engineer. This is excellent opportunity for capable man interested in a travelling position and who has a proven record in sales, management, application engineering and handling dealers and distributors. In reply give age and full details of background. BOX 2902 Air Conditioning & Refrigeration News.

MANUFACTURER'S REPRESENTATIVE for midwest manufacturer complete line display cases, walk-in coolers and other commercial refrigerated equipment. Territories: New England states; Eastern; and Midwest. BOX 2903, Air Conditioning & Refrigeration News.

DISTRICT MANAGERS—South-East and Mid-West territory open for aggressive sales representatives with a nationally known manufacturer of air conditioning units, condensing unit, heating & cooling coils. Experience in air conditioning sales and application engineering with national manufacturer desired. BOX 2904 Air Conditioning & Refrigeration News.

WANTED—AGGRESSIVE and industrious sales engineer to head air conditioning construction business. General experience required with particular ability to promote and finalize contracts. Write giving full particulars. BOX 2926, Air Conditioning & Refrigeration News.

MANUFACTURER'S REPRESENTATIVE—Some territories still open for manufacturer's representative to handle a complete line of air conditioning package units which have won national acceptance. Write complete details of your present operation and background. BOX 2905, Air Conditioning & Refrigeration News.

WANTED—SALESMAN for new type locker plant with unlimited sales outlets. Prefer men for Southwest territory and nearby states. Top commissions good for \$10,000 year. Write all particulars. BOX 2930, Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

WANTED—SERVEL kerosene refrigerators. Spot & futures. We have available for immediate and future delivery, all leading brands household refrigerators. Price lists available. BOX 2889, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

RECONDITIONED ELECTRIC refrigerators. Immediate delivery. All standard makes. Fully guaranteed. Wholesale only from \$49.50 up. Also large stock of "as-is" refrigerators from \$20 up. We buy trade-ins. APPLIANCE PRODUCTION CORP., 59 Crosby St., NY 12, NY.

3/8" X 7/2" YORK track doors. 4" cork insulation at \$100.00 each. 3/8" X 6" York double baton automatic close doors with track heads for 7" track. 1 1/2" cork board insulation at \$85.00 each. All new in original factory crates. Freight allowed in United States. BIMEL COMPANY, 2600 Colerain Avenue, Cincinnati 14, Ohio.

SEALED UNITS rebuilt and exchanged. Prompt service on Goldspot (sealed & semi-sealed), Chieftain, Gale, Tecumseh, Norge and many others. One year guarantee. Write for price list and shipping instructions. BRIGHTON, 16640 Log Cabin, Detroit 3, Mich.

FOR SALE—Bargain—1500 Standard steel lockers assembled, size 18" x 30", slightly used but guaranteed like new, white enamel, black trim. Door type worth \$3.00; price \$3.00 each. Drawer type worth \$2.00; price \$4.50 each. Immediate shipment. If you need lockers, order now, why pay more? Write, wire or phone THE CONNECTICUT ICE MACHINE CO., INC., South Norwalk, Connecticut.

SECTIONAL WALK-IN coolers delivered and installed within 60 miles of New York City \$1.25 per square foot. 4" fiberglass, kiln dried fir front, seasoned odorless spruce interior, N. C. pine floor, oak trim door, sponge rubber gasket. Heavy duty bright chrome hardware, diamond plate saddle. One week delivery. COOLER KING MFG. CO., 6013 13 Av., Bklyn., N. Y.

GOVERNMENT SURPLUS 1/2, 2, 3, 5, 7 1/2 HP Carrier or York compressors with marine or regular condenser receivers AC or DC motors. Ice makers 1 ton capacity, cold storage doors complete with frames opening 57" x 34". New Mills ice-cream cabinets 40 and 60 gal. with 15 gal. mix compartment. 30 gal. mix cabinets only \$115.00 each net. Mills freezers 2 1/2 and 5 gal. capacity. 25 to 40% off factory list price. Write to INTERSTATE TRADING CORP., 51 Chambers Street, New York 7, N. Y.

25 H. P. NEW Schnacke, has been installed in system but never used. Compressor only \$920. 4, 9-ton Alco thermo expansion valves (1/2 liquid 1/2 suction). Installed in system but not used. List \$44, yours for \$15 each. K. ISELY, 1617 N. Vassar, Wichita 6, Kans.

AMANA MODEL 200 walk-in freezer-coolers, 123 cu. ft. 8'4"x6'10" marine bonded plywood construction. Self contained 1/2 HP Universal compressor, blower coil, 4-Dole freezer plates, factory assembled, tested & charged with "F-12." All new crated, offered subject to prior sale. Sacrifice \$550.00 F.O.B. SD/BL. MASON, BROWN & COLVILLE, INC., 1529 Walnut St., Philadelphia 6, Pa.

FOR SALE ten 3-HP water cooled, "Freon" Copeland machines with 3-HP 3 phase motors \$248.00 each. Ten model 495 5-HP Copeland water cooled "Freon" machines equipped with 26 Copeland compressors and 5-HP 3 phase motors \$278.00. all F.O.B. Kansas City, Missouri. These machines are brand new in original Copeland crates and carry the one year factory guarantee. 10% deposit required with all orders, balance C.O.D. THE NAT CORPORA-TION, 2710 McGee, Kansas City, Missouri.

3 HP MILLS condensing units with 5 HP Wagner motors \$295. 5 HP Typhoon weathermakers \$295. 1 HP Amco weather-makers \$175. Following less motors: 50 HP Schnacke \$895. 1/2 HP Universal \$39. 1/4 HP Copeland \$29. 1 HP B-Line Motors \$44. Westinghouse 2 1/2 ton used self-contained air conditioner \$395. Some "as is" household used refrigerators. PILGRIM, 48-20 43rd Avenue, L. I. City 4, N. Y.

AMMONIA COMPRESSORS—brand new 3"x3" vertical, single acting Worthington ammonia compressors. Complete with multi-drive, fly wheel, belts, foundation bolts, spare parts, oil and gauges. Price, \$545.00 F.O.B. Philadelphia. Limited quantity for immediate delivery at this attractive price. Act now! Refrigeration Engineering Corp., RECO PRODUCTS DIVISION, 2020 Naudain St., Philadelphia 46, Pa.

LARKIN, C-75 @ \$690.00; Marlo, EC-7 1/2 @ \$690.00; Larkin, C-150 @ \$990.00; Recold, RMEC-2 @ \$170.50; Recold RMEC-4 @ \$267.50. McQuay, 4 row air handling unit ST-100 20 tons @ \$1350.00; 2 McQuay, 4 row air conditioning coil with distributor, net face 21" x 48" @ \$250.00. One all copper coil with Alco valve 6 row, net face 16 1/2" x 76" @ \$400.00; 3 all copper coils with Alco valve 6 row net face 20" x 76" @ \$435.00. Terms 25% with order balance sight draft all F.O.B. New York City. REESE & LONG REFR. PROD., INC., 408 E. 25th St., New York 10.

FRIGIDAIRE METER-MISER terminals. Installed from the outside in a few minutes without opening the compressor or removing unit. Stops leaky terminals on 1933 to 1937 units. Part No. 1150—\$5.25 set of three. Immediate delivery. Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

SEALED CROSELEY terminals. Installed from the outside in a few minutes without opening the compressor or removing unit. No special tools needed. Stops leaky terminals on "F-12" units. Part #1020 short model—for short Croseley terminals ("F-12" compressors with 4 mounting legs.) Part #1020 long model—for long Croseley terminals ("F-12" compressors with 3 mounting legs.) \$5.25 set of three. Immediate delivery. Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

SUBJECT TO prior sale: hermetic Chieftain units—1/4 H. P., \$44.50; 1/2 H. P., \$48.50. Other well known hermetics—1/4 H. P. fan cooled, \$52.50; 1/2 H. P. fan cooled light duty, \$57.50; 1/2 H. P. fan cooled heavy duty, \$59.50; 1/2 H. P. fan cooled, \$69.50. Open units, standard makes—1/4 H. P., \$54.50; 1/2 H. P., \$64.50; 1/2 H. P., \$84.50. Above prices quoted on lots of six. All open units are 60 cycle, single phase. All above units new, carrying factory warranty. Write for unit list. Minneapolis-Honeywell, Dual press. control, \$3.00; White-Rodgers, Low press. control, \$3.25; Genuine Frigidaire Low press. control, Y. L. \$4.25; Detroit Low pressure control, \$4.25; G. E. Blower fan motor with 10" fan, 110 v. 60s, \$4.50; Superior Heat Exchanger, 13" overall, 3/4" x 1/2", \$4.75; Mueller Heat Exchanger, 14 1/2" overall, 3/4" x 1/2", \$5.00; Mueller Heat Exchanger, 21" overall, 1/2" x 1", \$9.00; Kayson heavy duty cooler locks, 13" overall, with set of hinges, 15" overall, complete with inside push rod and master lock and keys, \$9.50; Kramer Trenton 1/2 ton panel blower compressor, \$35.00; Vapor proof refrigerator lights, with guard, \$3.00; Filter drier, silica gel, 1/4" x 1 1/4" x 6 1/2" overall, 10, \$6.50; U. S. "Freon" gauge 4 1/2" face, 30" vac., 150# or 300# corresponding temperature scale, red warning hand, \$4.50; 5 lb. can Davison refrigeration silica gel, \$1.10; Cold plates —1-30" x 55"-2-30" x 64", 3 to a set, \$35.00. WALTER W. STARR, 1207 W. George St., Chicago 13, Ill.

REBUILD YOUR own sealed units. Send us your burnt and stuck up heads and they will be immediately replaced from our stock. Send for our complete price list. TECHNICAL REFRIGERATION SPECIALISTS, 362 East 130th Street, Bronx 57, New York.

FOR SALE: new "Gemco" 5-ton package air conditioner in original crate, now in United Trucking & Storage Co. warehouse in Indiana. Will take \$750.00 F.O.B. warehouse. This is \$100 off original cost. BOX 2925, Air Conditioning & Refrigeration News.

FRANCHISES WANTED

MANUFACTURER LOCATED in east interested in producing specialty item in conjunction with refrigeration, small or large quantity. Inquiries with full details invited. BOX 2911 Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

ESTABLISHED COMMERCIAL air conditioning and domestic refrigeration business. Location: N.Y.C. Fully equipped. Good stock, excellent supply sources, 600 sq. ft. of shop space, one truck. Doing over \$20,000 annually. We believe this can be increased many times by right party. Good opportunity for two qualified mechanics. Reason for selling: partner disagreement. Approx. \$4000 to handle. BOX 2918 Air Conditioning & Refrigeration News.

ESTABLISHED JOBBER in New York State, will sell complete business, approximately \$25,000 inventory. Gross business last year over \$100,000. Have valuable franchises. Owner has other interests, but would stay with purchaser until well established. BOX 2919 Air Conditioning & Refrigeration News.

OHIO MANUFACTURER has open capacity for manufacturing cabinets. Will also do experimental and process work for established companies. Complete metal, wood, paint and bake facilities. Have steel commitments. BOX 2927, Air Conditioning & Refrigeration News.

COMPLETELY EQUIPPED refrigeration shop located in Washington, D. C. Shop contains 2 floors equipped with lathe, arc and acetylene outfit, and standard repair machinery. Stockroom contains compressors, motors, and spare parts. Five year lease on building if desired. Rent \$55.00 per month. Priced at \$3,750 for quick sale. BOX 2929, Air Conditioning & Refrigeration News.

WANTED REFRIGERATION SERVICE MANAGER:

Nationally known large commercial refrigerator manufacturer in middle west has an opening for a service manager. Give qualifications and salary desired.

Box 2908, Air Conditioning & Refrigeration News

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Many New Design Features Distinguish Kelvinator '49 Ice Cream Cabinet Line

DETROIT—An entirely new line of Kelvinator ice cream cabinets, re-designed and re-engineered to provide more interior space without increasing over-all size, is now in production at the company's Detroit plant, Don H. Carter, Kelvinator ice cream cabinet sales manager, has announced.

The 1949 Kelvinator group includes five new models, from the trim two-hole model, re-introduced this year, to the large eight-hole double-row cabinet. A completely new product introduced to the ice cream trade is the big-capacity 20-cu. ft. storage cabinet.

"Features incorporated in this line are among the most revolutionary since the chest-type line of ice cream cabinets was introduced in 1936," Carter claims. He said careful re-designing of the refrigeration unit assembly and its position in the ice cream cabinet had resulted in greater usable interior space than in previous cabinets occupying the same floor space.

Most of the space-saving result is achieved by using a new wrapper-type condenser, the coils of which are welded to the interior surface of the cabinet shell. The design, developed and field-tested by Kelvinator, is said to make possible a compact cabinet of much smaller dimensions than one equipped with a conventional type condenser, fan, fan motor, and shroud.

Carter said all models are lighter in weight, by as much as 220 pounds in the eight-hole cabinet, permitting savings in transportation and installation-handling costs. The double-row models have new square "change-

about" lids, which may be turned around to open from either side or the ends of the cabinet, offering easy access to a variety of ice cream flavors.

The two-hole cabinet is engineered for small shops, or locations where floor space is at a premium, and will also serve as a "spot" cabinet in large outlets. It has a package capacity of 19 gallons, or 7½ gallons bulk.

There are two four-hole models, a single row for narrow areas, and a double-row cabinet for locations where compactness is desirable. The single row holds 46 gallons of packaged ice cream or 17½ bulk gallons, and provides 17% more capacity than the previous model without an increase in the required floor space. The double row occupies 22% less floor space than the previous model and holds 38 package gallons or 15 bulk gallons.

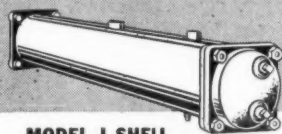
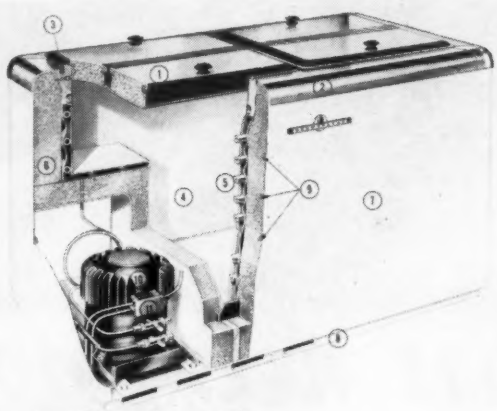
Kelvinator's six-hole double-row cabinet meets today's demand for a wide variety of flavors, bulk and package, offering 25 gallons bulk capacity or 63 gallons packaged goods. It occupies 16% less floor space than the previous model.

Designed for big volume outlets, the eight-hole double-row cabinet occupies 15% less floor space than its predecessor, and has a capacity of 88 package gallons or 35 gallons bulk.

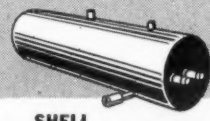
Kelvinator's new 20-cu. ft. ice cream storage cabinet is especially designed for back room storage purposes, and has a capacity of 70 gallons bulk or 150 gallons of packaged ice cream.

Design and construction features of new Kelvinator ice cream cabinet models are shown on this numbered cut-away.

(1) "Change-about" flip-top lids. (2) Stainless steel top capping. (3) Aluminum chamber guards with stainless steel breaker strips replacing black rubber guards. (4) New heavy-gauge, sealed aluminum storage compartment. (5) Extruded aluminum refrigerant tubing. (6) Fiberglass insulation, installed extra thick around storage compartment, protected by aluminum-foil wrapper. (7) Welded steel cabinet finished in baked enamel. (8) Channel steel base with perforations for ventilation of machine compartment. (9) Exclusive wrapper-type condenser, consisting of arrangement of condenser coils welded to the interior surface of the cabinet wrapper. (10) "Polariscope" sealed condensing unit. (11) Combination magnetic starting relay and thermal overload relay, dome mounted to provide maximum motor winding protection.



MODEL J SHELL AND TUBE CONDENSERS
Low cost, easy-to-clean, sturdy built for long life—1½ ton to 25 tons.



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Compact, inexpensive, efficient. Steel shell, copper coils. ½ H. P. to 5 H. P.

These condensers are for both FREON and Methyl-Chloride and are Underwriters Laboratory Approved. Your Jobber can supply you—or write direct

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REFRIGERANT
CONTROLS**

ALCO VALVE CO.
ST. LOUIS

A 'Forty-Niner' Model Makes Its Bow



Don H. Carter (center), Kelvinator's ice cream cabinet sales manager, demonstrates the "change-about" lid feature of Kelvinator's new ice cream cabinet line to H. C. Patterson (left), Kelvinator commercial sales manager, and Charles T. Lawson (right), vice president in charge of sales. Model shown is the eight-hole, double-row cabinet.

Steel Allocations to Warehouses Will Take Cut In Fourth Quarter

NEW YORK CITY—Steel allocations to warehouses and distributors in the New York City area for the fourth quarter have been cut about 25% while deliveries on third quarter allocations are running about 10% behind, the *New York Times* reported last week.

The slow deliveries, the paper said, leave a large carry-over to be charged against fourth quarter allocations.

Steel warehousemen and distributors are facing the necessity of re-adjusting their operations to meet the shorter allocations, according to the paper. They see six factors causing the readjustment.

These factors, the *Times* said, are: "1. More mills were being forced by circumstances to adopt month-to-month scheduling programs rather than booking orders further ahead.

"2. Some mill order books were now closed until Jan. 1, 1949, for example, on cold finished bars.

"3. Demands from industrial buyers continued to soar, spurred by fear of tightening of allocations after November elections.

"4. Shut-downs of mill machinery for repairs and replacements have continued to interfere with deliveries to warehouses.

"5. There was a constantly rising total tonnage of preference allocated steel, little by little reducing the balance available to warehouses.

Electromatic Catalog Has Fittings, Parts Data

CHICAGO—A new, enlarged catalog of products for the air conditioning and refrigeration industry that are manufactured by the Electromatic division of the Simoniz Co. here was recently issued by that firm.

The catalog, titled *Refrigeration Catalog 48-25*, contains pictures, descriptions, and listings of such new products as the Electromatic liquid indicator as well as the company's complete line of forged flare nuts and refrigeration and brass pipe fittings.

It also contains information on charging lines, quick couplers and quick coupler elbows, strainers, driers, and an oil level sight glass.

Printed in two colors, the catalog has an index on the front cover.

Electromatic's line of automatic control and regulating valves is listed in a separate catalog (No. 48-2).

Both catalogs are available on request to the Electromatic division, 2100 Indiana Ave., Chicago 16.

Dress Shop Is Cooled

MONTGOMERY, Ala.—Nolin Bros. Refrigeration Co. has installed Worthington air conditioning equipment in the Eleanor Shop here.

Dept. Store Sales Up In Third August Week

WASHINGTON, D. C.—Department store sales throughout the nation showed a 12% increase for the week ended Aug. 21 over sales for the corresponding week of 1947, according to a report of the Federal Reserve Board.

A 24% gain in the Chicago district was contrasted to a "no gain" report for Boston.

TYPHOON
SELF-CONTAINED UNITS
AIR CONDITIONING
For Small Budgets

Sizes up to 7-tons.
Product of over 30 years of experience

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MARLO-HEAT TRANSFER
Since 1925

BEVADOR

**Merry-Go-Round
Shelves bring
bottles to the front**

Available again, this sensational refrigerator for hotels, restaurants, taverns, delicatessens. It changes your customers' whole idea of how to cool beverages. It increases sales. Every bottle uniformly cooled and dry. Labels stay on.

This specialty item is your answer to price competition. A better net profit to you. Write for Details.

IT IS EASIER TO USE

Revolving shelves bring each bottle or package to the front, no matter how many brands are stocked. A flip of the finger and there's the bottle. No pawing or double handling.

HALF THE SPACE

If space is the problem, this is the only cabinet to sell. It has a 37" diameter. Half the space needed for ordinary refrigerator of equal capacity.

COOLS MORE

It is easier to fill. Put warm bottles on the shelf, turn the shelf for cold bottles. Cuts labor in half.

Bright aluminum hammered finish. Interior, neon lighted. Best looking cooler you ever saw. Holds 22 cases of pints. Shelves adjustable to any height. Forced draft evaporator, 1/3 H. P. compressor.

JEWETT REFRIGERATOR CO., INC.

2 LETCHWORTH ST.

BUFFALO 13, NEW YORK

Detroit Codes--

(Concluded from Page 1, Column 2)

fee provided that the licensing requirements of the other cities are comparable to Detroit's and that the same privilege is accorded to Detroit contractors.

Written or oral examinations will be required of applicants for oil burner licenses, which will be issued in two classes—Class A, limited to work on burners using No. 1, 2, or 3 distillates with a maximum fire rate of 30 gals. per hour, and Class B, which is unlimited.

Inclusion of contractor licensing provisions in the oil burner code was provided "as a last resort after trying to get along without them for more than 20 years," asserts John Rehard, chief safety engineer of the city of Detroit.

"Many contractors demanded such licensing because fly-by-night operators in the past two or three years had been putting in shoddy oil-burner installations and then leaving town," Rehard declared.

Several changes in current Detroit practices are made by the new refrigeration operating ordinance.

Licensed operating engineers will not be required in most instances where refrigeration or air conditioning systems installed in "institutional" or "Public Assembly" occupancies contain less than 100 lbs. of refrigerant and are driven by motors under 25 hp.

Systems in other types of occupancies which have less than 250 lbs. of refrigerant and driven by motors under 50 hp. will not need operators.

Both the above exemptions, however, are subject to the opinion of the Department of Buildings and Safety Engineering that "safety and welfare are not jeopardized."

It is pointed out by officials of the department that the new requirements apply to individual systems rather than the complete refrigeration or air conditioning installation in a building. In a "public assembly" type occupancy, for example, there could be a 10-hp. system and a 20-hp. system, both being entirely separate. No licensed operator would probably be needed, although a single system of 25 hp. in the same occupancy would have to have an operator.

In recent years the city department has had to use its own discretion in determining which systems required operators because the old code dating back to the days before low-pressure refrigerants had arbitrarily called for operators on systems 3 tons in size and over.

Prior to the new ordinance, the city had often set 10 tons as the dividing line for requirement of licensed operators.

As for the licensing of the operators themselves, the new ordinance sets up three classes (first, second, and third) where before there were only two—limited and unlimited.

The first class license is unlimited, in effect, while the second class license permits the operator to work on systems containing not more than 1,000 lbs. of refrigerant and having motors not in excess of 250 hp.

The third class license holder is limited to systems under 500 lbs. of refrigerant and motors under 125 hp., and cannot operate systems in "institutional" occupancies regardless of size.

Operators now licensed under present code requirements will be issued new licenses without examination, the class of license being determined by the size of system they are now operating, provided they have been employed on that system within the 60 days immediately preceding Sept. 2, the effective date of the new ordinance.

Licenses held by operators on systems that no longer require licensed operators under the new ordinance will be automatically voided.

Brief Power Failure Shuts Down Cooling Systems In New York

NEW YORK CITY—What happens—especially to air conditioning and refrigeration equipment—when the electrical power supply fails in a large city?

Workers and residents of lower Manhattan had the unhappy experience of finding out last week. Luckily, with the temperature getting uncomfortably close to 100°, many business firms had sent their employees home early and therefore not as many persons were affected as might have been.

The power failure, caused by a burnt out cable at a generating plant and the breaking down of several generators, lasted two hours from 3 to 5 p.m. No power at all was available in the downtown area below 14th St. Diminished power service was required in mid-Manhattan up to 74th St.

Lights in stores and theaters and on signs went out. Elevators stopped running. Subways moved at half-speed. Electric clocks stopped. Traffic signals failed to operate. Refrigerators went dead.

Answering appeals broadcast by the Consolidated Edison Co. for buildings outside the affected area to conserve electricity, many theaters, hotels, and office buildings shut off their air conditioning systems, or sharply curtailed their operation.

The *New York Times* reported that "at the height of the power collapse refrigeration units run by electricity, both in homes and the large wholesale meat markets, went dead."

"The Manhattan Refrigerating Co. said that its plant at Gansevoort and West Sts. was 'dead, blacked out,' from 3:30 p.m. Company officials estimated that millions of pounds of perishable food were in its vaults."

"The company, located in the borough's largest market, said through a spokesman that it was 'waiting for Edison' to turn on the current used in its refrigerating system."

"The spokesman added that there was not a single light in the place and that the 'plant was filled to capacity.'"

Two department stores within the area of complete failure, found all their air conditioning, light, and elevator service gone. So they ushered customers out of the store and closed their doors for the day.

Gary Marbut To Head Territory for Whiting

CHICAGO—Appointment of Gary R. Marbut as district sales manager has been announced by the Refrigeration Division of the Whiting Corp. His territory will include Colorado, Kansas, Nebraska, North and South Dakota.

Previous to joining the Whiting organization, Marbut was sales representative for the Dutton - Lainson Corp. at Hastings, Neb. During the war, he served three years as Administrative officer in the Army Air Corps.

Gov't Shows It Realizes Need for Comfort Cooling

WASHINGTON, D. C.—On the day last week that boasted the year's worst heat in many parts of the country, all government employees here who were not working in air conditioned buildings were sent home by mid-afternoon.

Contractors' Conclave To Convene Just Prior To Service Engineers

CLEVELAND—National Association of Refrigeration Contractor's board of directors will meet in Chicago Sept. 10 to discuss plans and arrangements for the annual meeting to be held in the Hotel Sherman in Chicago on Nov. 18 and 19.

N.A.R.C., in selecting the dates of Nov. 18 and 19, was cognizant that R.S.E.S. is holding its annual meeting at the same hotel on Nov. 19, 20, and 21. It was felt that with many members of N.A.R.C., likewise being members of R.S.E.S., it would be a convenient means for these members to attend both sessions.

The Midwest Refrigeration Educational Conference opens on Nov. 19.

Blythe Co. Moves to New Chicago Quarters

CHICAGO—H. W. Blythe Co., wholesaler of refrigeration parts and supplies here, is moving Sept. 1 to larger quarters at 529 N. Milwaukee Ave.

These enlarged quarters also have frontage on Ohio St. where there is parking space for the pick-up trade. Counter service is being expanded in the new location and delivery schedules have been worked out to better serve the entire city. Inventories have been increased and new lines added to meet the demands of the trade.

They Head Up Field Sales Areas for 'Bev' Line



A. D. MACKAY

H. PAUL HOFFMAN

L. J. MEINDL

Artkraft Names Three Regional Sales Chiefs

LIMA, Ohio—Appointment of three additional regional managers to handle sales of the "Bev" line of specialty refrigeration units is announced by Morton L. Clark, president and sales manager of the Artkraft Mfg. Corp. here.

Recently added to the staff are A. D. MacKay of Charlotte, N. C., who has North Carolina; H. Paul Hoffman of Pittsburgh, western Pennsylvania and part of West Virginia; and L. J. Meindl of Philadelphia, eastern Pennsylvania and part of New Jersey. All three have spent many years in the appliance sales field.

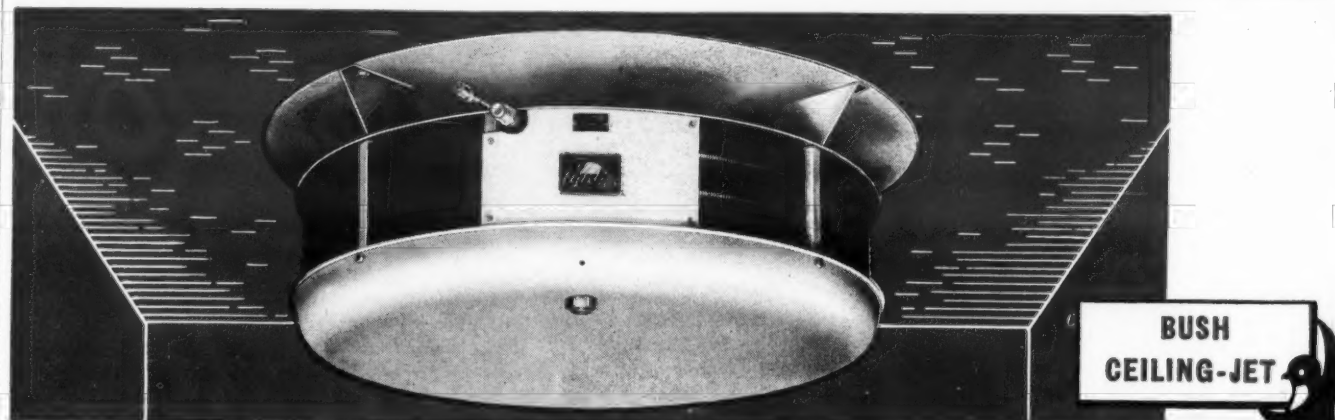
'Atomic Air Cooling' Gypsters Unmasked

ST. LOUIS—Atomic air conditioning has arrived!—according to some fast talking canvassers in South Carolina.

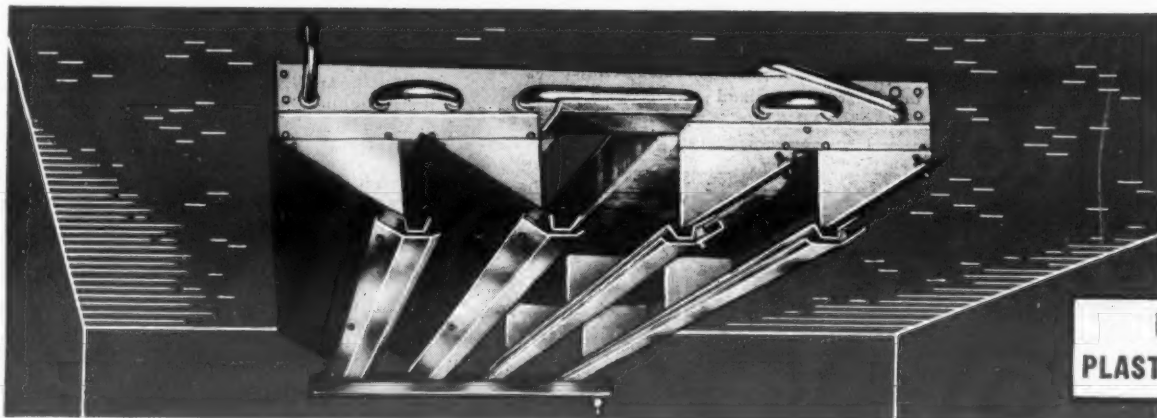
A story recently appearing in the *St. Louis Globe-Democrat* reports on "atomic cooling" as follows:

"In South Carolina . . . smooth-talking canvassers cleaned up with a 'new type air conditioning unit' which consists of a cheap electric fan set in a wooden box.

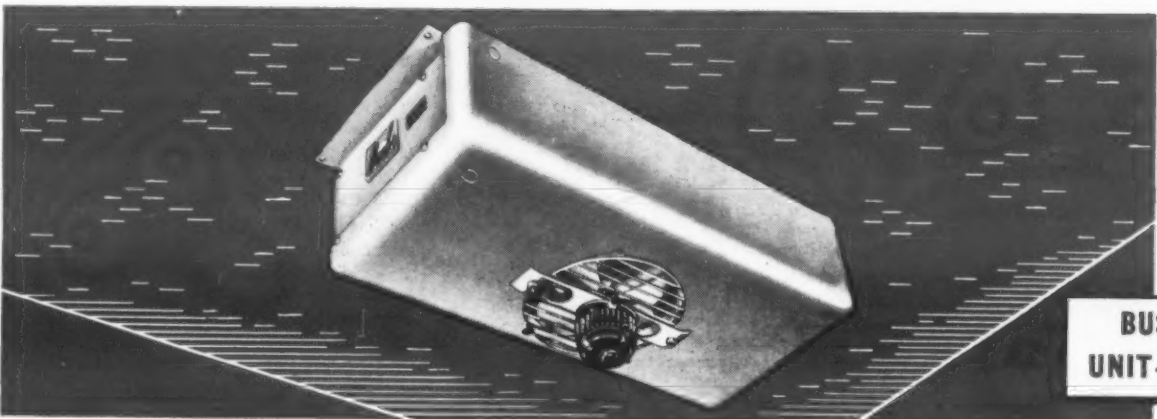
"It sells readily for \$38 because, as the shysters point out, 'it utilizes a principle of atomic reaction setting up a microscopic chain reaction which has a beneficial effect on the sinuses.'"

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BUSH Unit Coolers hold down overhead two ways. They economize on expensive head room . . . a definite advantage to your customer. They mean easy installation and minimum service . . . more profit for you. Get acquainted with the BUSH Factory Representative in your territory. He is an expert refrigeration and air conditioning engineer . . . a good man to know. Let him help you on your next important job. BUSH Heat Transfer Products are AVAILABLE NOW through leading refrigeration and air conditioning wholesalers everywhere.

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MANUFACTURING PLANT WANTED

Nationally known manufacturer of accepted refrigeration products desires to relocate plant. Gross sales three million annually. Will consider purchasing outright a plant 30 to 60M square feet, or will lease. Will also consider affiliation or amalgamation with another manufacturer of refrigeration products or one who manufactures and markets a seasonal product. Can furnish capital, machinery, engineering and market for products. All replies confidential. Will arrange immediate appointments upon reply.

Address Box 2917, Air Conditioning & Refrigeration News